Order No. MD0102028C1

A6

Service Manual

Portable Stereo CD System

COMPACT disc DIGITAL AUDIO

RX-D13

Color

(A) ... Blue Type

(R) ... Red Type

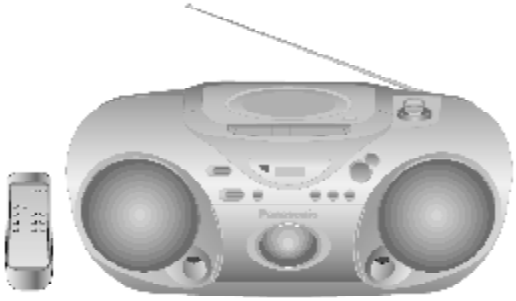
(S) ... Silver Type

P ... U.S.A.

PC ... Canada

Tape Deck: SG20 Mechanism Series

Traverse Deck: RAE0152Z-1C Mechanism Series



SPECIFICATIONS

■ RADIO

Frequency Range	
FM	**87.9-107.9 MHz (200 kHz steps)** **87.5-108.0 MHz (100 kHz steps)**
AM	**520-1710 kHz (10 kHz steps)**
Intermediate Frequency	
AM	**450 kHz**
FM	**10.7 MHz**
Sensitivity	
AM	**46 dB/m/50 mW**
FM	**15 dB/50 mW**

■ TAPE RECORDER

Track System	**4 track, 2 channel, stereo**
Monitor system	**Variable sound monitor**
Recording system	**AC bias**
Erasing system	**Multi pole magnet**
Frequency range	
Normal position	**50 ~ 12000 Hz**

■ CD PLAYER

Sampling frequency	**44.1 kHz**
Decoding	**16 bit linear**
Beam source	**Semiconductor laser (wavelength 780 nm)**
No. of channels	**2 channel, stereo**
Wow and flutter	**Less than possible measurement data**
D/A converter	**(1 bit DAC)**

■ GENERAL

Power Requirement	
AC	**120 V, 60 Hz** **Power Consumption : 14 W**
Battery	**9 V (six R20/LR20, D, UM-1 batteries)** **■ Do not use rechargeable type batteries.**
Memory back-up	**6 V (four R6/LR6, AA, UM-3 batteries)** **■ Do not use rechargeable type batteries.**
Speakers	**10 cm (3-15/16”) 4 Ω x 2**
Jacks	
Output	**Phones : 3.5 mm stereo (32 Ω)**
Dimensions (W x H x D)	**420 x 167 x 275 mm (16-17/32” x 6-31/32” x 10-13/16”)**
Mass	**3.4 kg (7 lb. 8 oz.) without batteries**

Power consumption in standby mode : 1 W

Notes:

1. **Specifications are subject to change without notice.**
2. **Mass and dimensions are approximate.**

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic®

1. Safety Precaution

(This "Safety Precaution" is applied only in U.S.A.)

1. **Before servicing, unplug the power cord to prevent an electric shock.**
2. **When replacing parts, use only manufacturer's recommended components for safety.**
3. **Check the condition of the power cord. Replace if wear or damage is evident.**
4. **After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields, etc.**
5. **Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from being exposed to a shock hazard.**

- Insulation Resistance Test

1. **Unplug the power cord and short the two prongs of the plug with a jumper wire.**
2. **Turn on the power switch.**
3. **Measure the resistance value with ohmmeter between the jumper AC plug and each exposed metal cabinet part, such as screw heads, antenna, control shafts, handle brackets, etc. Equipment with antenna terminals should read between 3M Ω and 5.2M Ω to all exposed parts*. (Fig 1) Equipment without antenna terminals should read approximately infinity to all exposed parts. (Fig 2)**
   ***Note: Some exposed parts may be isolated from the chassis by**

design. These will read infinity.

4. **If the measurement is outside the specified limits, there is a possibility of a shock hazard. The equipment should be repaired and rechecked before it is returned to the customer.**

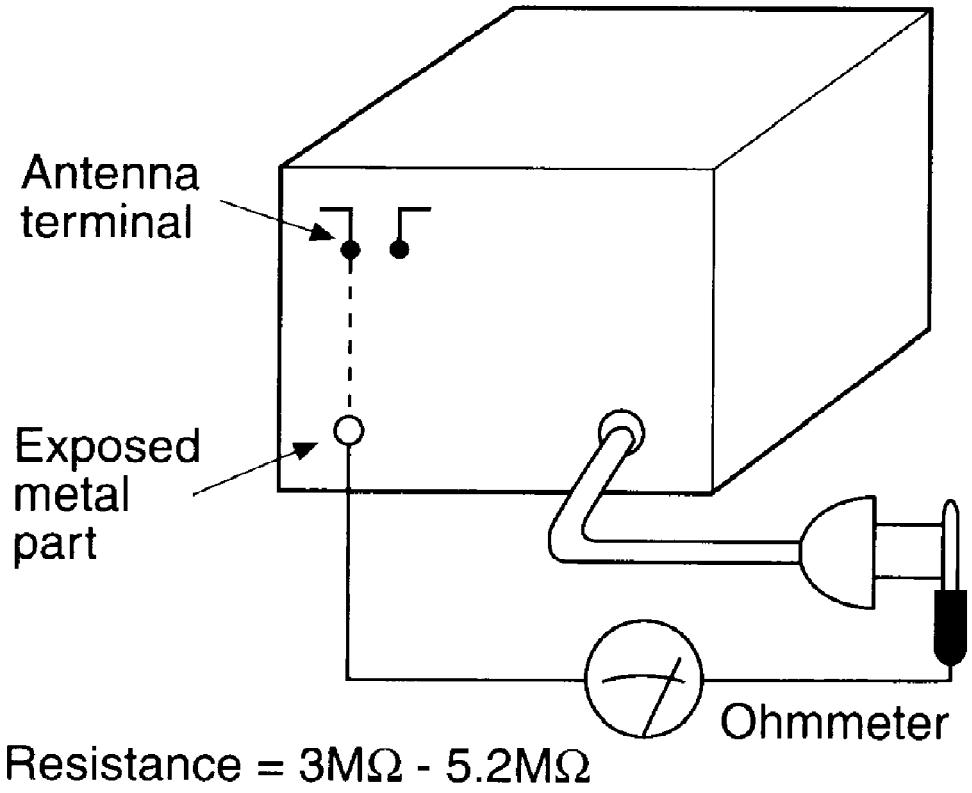


Fig. 1

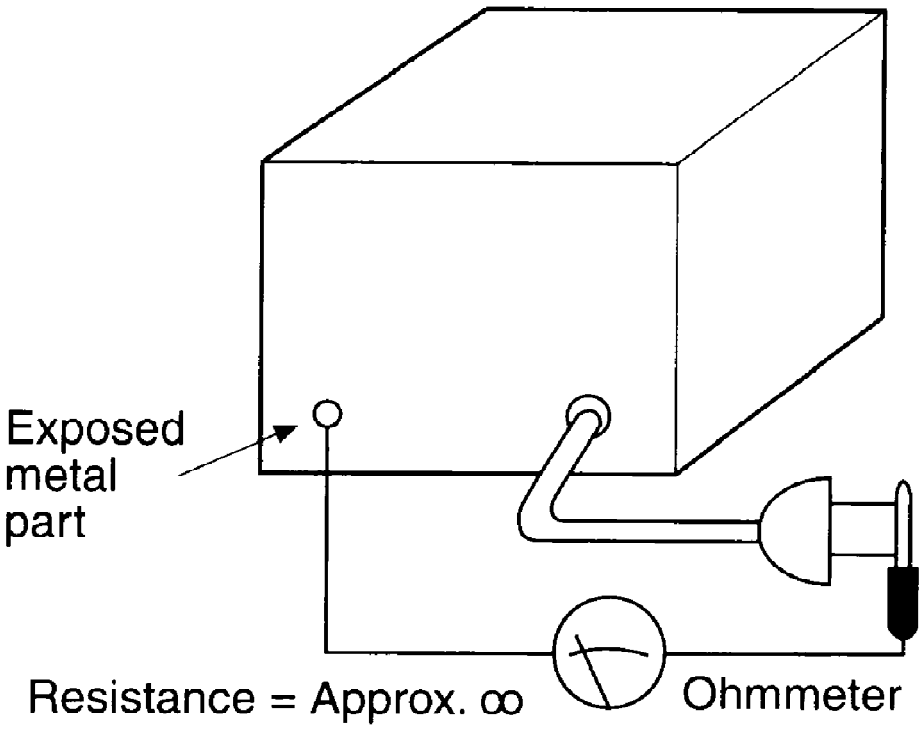


Fig. 2

Battery Service Life

UM-1 (D-size) Batteries / Approximately 30 hrs of Tape Recording. (EIAJ) / Approximately 16 hrs of Tape Playback. (EIAJ) / Approximately 11.5 hrs of CD Recording. (EIAJ) / Approximately 10.5 hrs of CD Playback. (EIAJ)

The battery service life is measured according to the conditions set forth by EIAJ. (Electronic Industries Association of Japan). As the battery service life varies with the method of operation and environmental conditions, use these values as reference.

2. Before Repair and Adjustment

Disconnect AC power, discharge Power Supply Capacitors C120, C220, C317 through a 10 Ω, 5 W resistor to ground. DO NOT SHORT-CIRCUIT DIRECTLY (with a screw driver blade, for instance), as this may destroy solid state devices.

After repairs are completed, restore power gradually using a variac, to avoid over current. Current consumption at AC 120 V, 60 Hz in NO SIGNAL mode should be ~75 mA respectively.

3. Protection Circuitry

The protection circuitry may have operated if either of the following conditions are noticed:

- No sound is heard when the power is turned on.

- Stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are “shorted”, or if speaker systems with an impedance less than the indicated rated impedance of the amplifier are used.

If this occurs, follow the procedure outlines below:

1. Turn off the power.

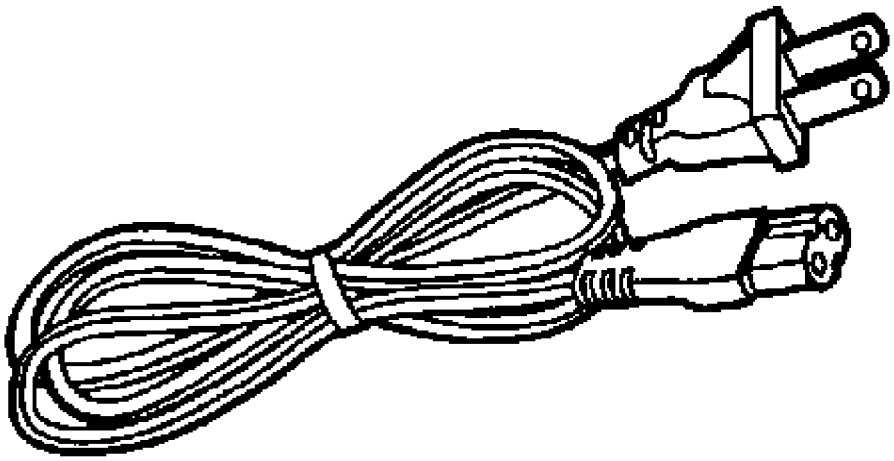
2. Determine the cause of the problem and correct it.

3. Turn on the power once again after one minute.

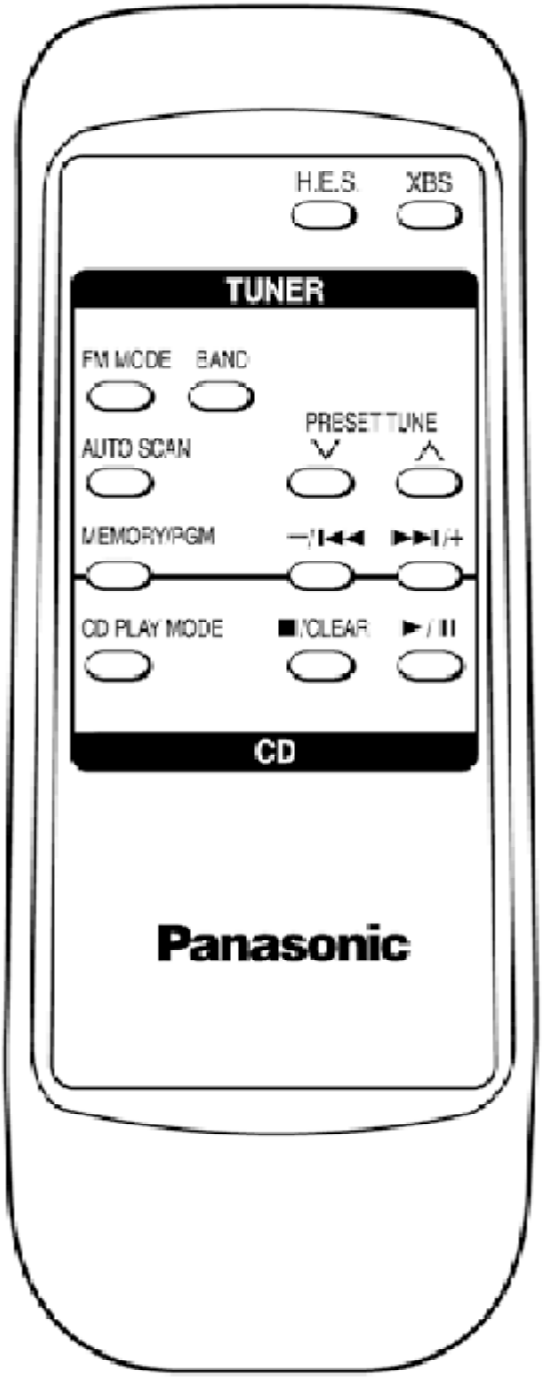
Note:
When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

4. Accessories

AC power cord.... 1 pc



Remote Control.... 1 pc



5. Handling Precautions For Traverse Deck

The laser diode in the traverse deck (optical pickup) may break down due to potential difference caused by static electricity of clothes or human body. So, be careful of electrostatic breakdown during repair of the traverse deck (optical pickup).

- Handling of traverse deck (optical pickup)

1. **Do not subject the traverse deck (optical pickup) to static electricity as it is extremely sensitive to electrical shock.**

2. To prevent the breakdown of the laser diode, an antistatic shorting pin is inserted into the flexible board (FFC board).
3. Take care not to apply excessive stress to the flexible board (FFC board). When removing or connecting the short pin, finish the job in as short time as possible.
4. Do not turn the variable resistor (laser power adjustment). It has already been adjusted.

- Grounding for electrostatic breakdown prevention

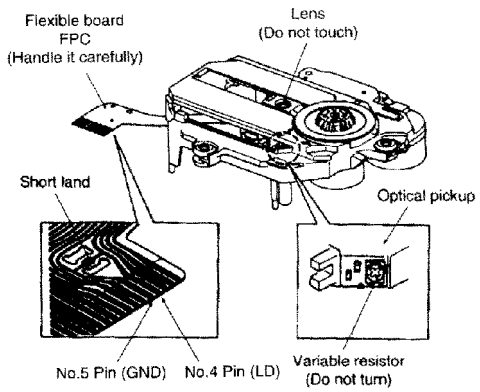
1. Human body grounding
   Use the anti-static wrist strap to discharge the static electricity from your body.
2. Work table grounding.
   Put a conductive material (sheet) or steel sheet on the area where the traverse deck (optical pickup) is place, and ground the sheet.

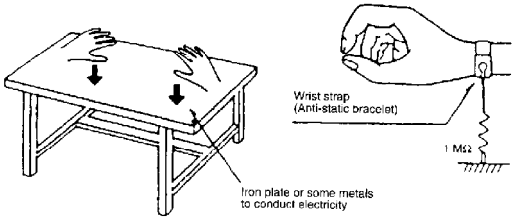
Caution:

The static electricity of your clothes will not be grounded through the wrist strap. So, take care not to let your clothes touch the traverse deck (optical pickup).

on when replacing the Traverse Deck

The traverse deck has a short point shorted with solder to protect the laser diode against electrostatics breakdown. Be sure to remove the solder from the short point before making connections.





6. Precaution of Laser Diode

Caution:

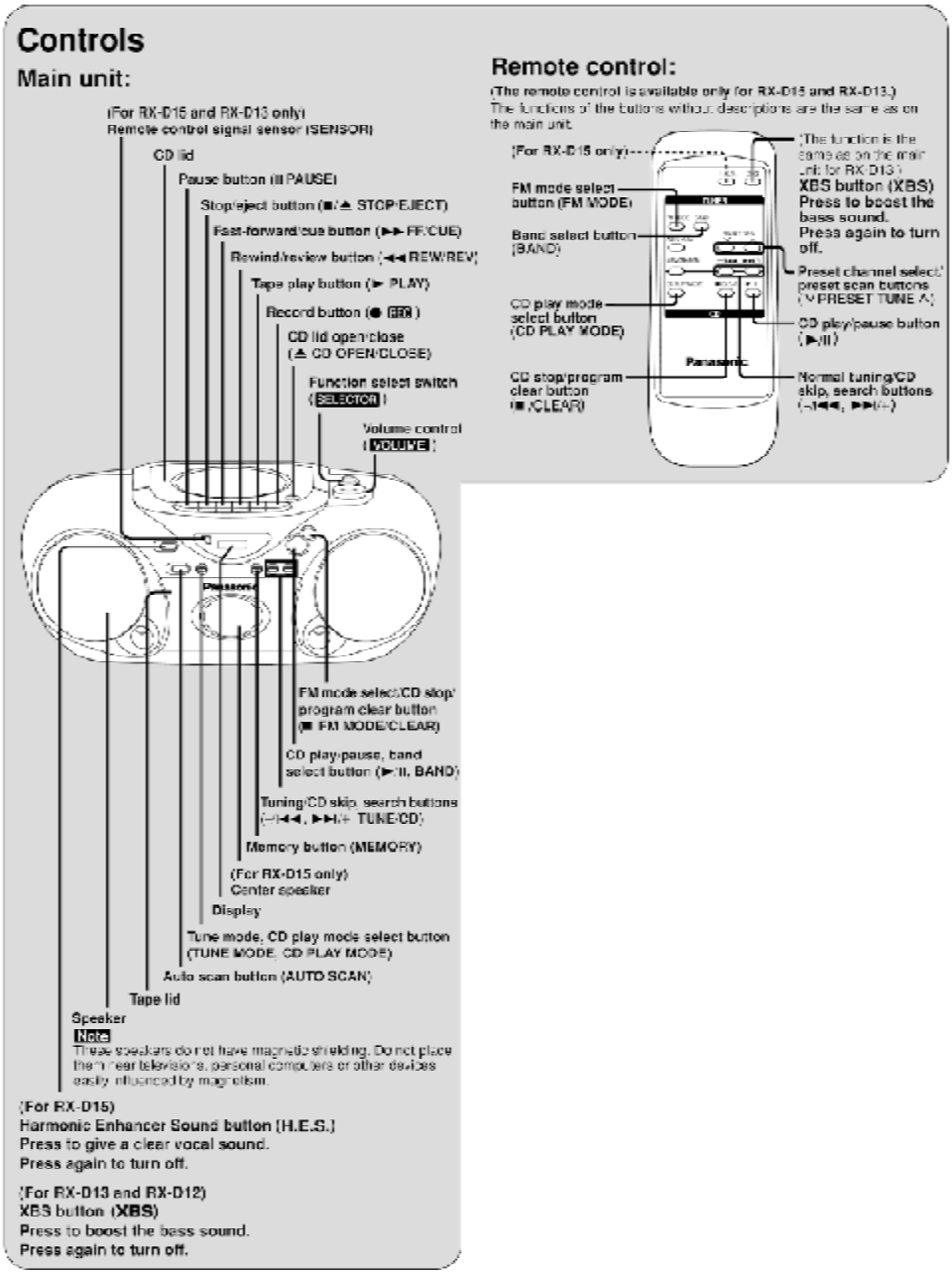
This unit utilizes a class 1 laser. Invisible laser radiation is emitted from the optical pickup lens. When the unit is turned on:

1. **Do not look directly into the pickup lens.**
2. **Do not use optical instruments to look at the pickup lens.**
3. **Do not adjust the preset variable resistor on the pickup lens.**
4. **Do not disassemble the optical pickup unit.**
5. **If the optical pickup is replaced, use the manufacturer's specified replacement pickup only.**
6. **Use of control or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.**

CAUTION!

THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

7. Controls


Controls
Main unit:
(For RX-D15 and RX-D13 only)
Remote control signal sensor (SENSOR)
CD lid
Pause button (II PAUSE)
Stop/eject button (■/▲ STOP/EJECT)
Fast-forward/cue button (▶▶ FF/CUE)
Rewind/review button (◀◀ REW/REV)
Tape play button (▶ PLAY)
Record button (● REC)
CD lid open/close (▲ CD OPEN/CLOSE)
Function select switch (SELECTOR)
Volume control (VOLUME)
FM mode select/CD stop/ program clear button (■ FM MODE/CLEAR)
CD play/pause, band select button (▶II, BAND)
Tuning/CD skip, search buttons (–I◀◀, ▶▶I/+ TUNE/CD)
Memory button (MEMORY)
(For RX-D15 only) Center speaker
Display
Tune mode, CD play mode select button (TUNE MODE, CD PLAY MODE)
Auto scan button (AUTO SCAN)
Tape lid
Speaker
Note
These speakers do not have magnetic shielding. Do not place them near televisions, personal computers or other devices easily influenced by magnetism.
(For RX-D15)
Harmonic Enhancer Sound button (H.E.S.)
Press to give a clear vocal sound.
Press again to turn off.
(For RX-D13 and RX-D12)
XBS button (XBS)
Press to boost the bass sound.
Press again to turn off.
Remote control:
(The remote control is available only for RX-D15 and RX-D13.)
The functions of the buttons without descriptions are the same as on the main unit.
(For RX-D15 only)
FM mode select button (FM MODE)
Band select button (BAND)
CD play mode select button (CD PLAY MODE)
CD stop/program clear button (■/CLEAR)
(The function is the same as on the main unit for RX-D13.)
XBS button (XBS)
Press to boost the bass sound.
Press again to turn off.
Preset channel select/ preset scan buttons (∨PRESET TUNE∧)
CD play/pause button (▶/II)
Normal tuning/CD skip, search buttons (–I◀◀, ▶▶I/+)

8. Self-Diagnostic Functions

8.1. Setting of the Self-Diagnostic Mode

1. Switch the SELECTOR to CD and set to TAPE STOP state. (CD PLAY → STOP)
2. Press the ■ /CLEAR for the first two seconds and followed by the FAST FORWARD keys for another two seconds without releasing the ■ /CLEAR key, it shall enter into the Self-Diagnostic mode.

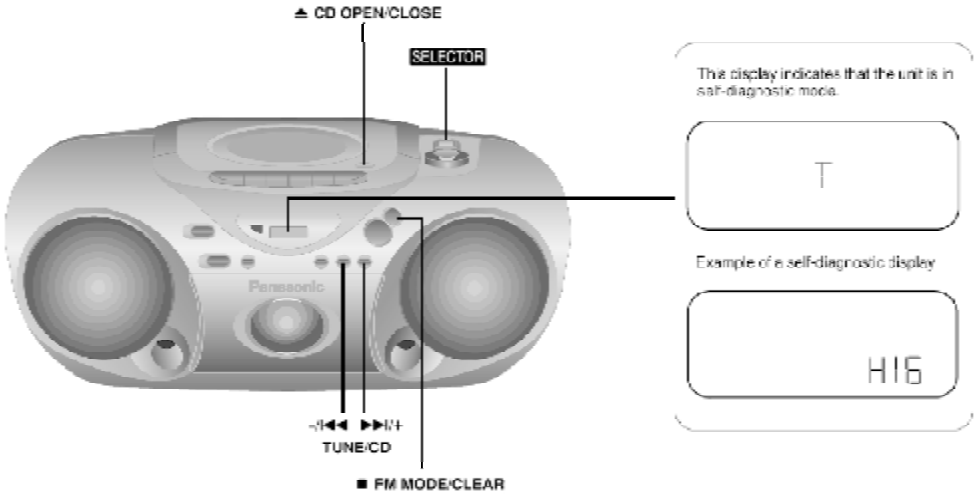
3. At the state of [T] display, operate as follows:

- **Open the CD lid and close it right away.**
- **Start recording TAPE, and STOP it at once.**

4. Press ■ /CLEAR key.

- **Self diagnostic results, i.e. the memorized errors during actual operations and the result of above-mentioned operation shall be displayed alternately.**
- **If there is no error, the aforementioned display [T], shall be kept.**
- **If the operation in the above mentioned in 4 is made without executing the procedure in 3, [H16] and [F69] shall be displayed.**

8.2. Display Location



8.3. Display Content

No.	Abnormal Items	Error Display	Method of detection
1	CLOSE SW abnormal	H16	Detect error during closing operation and mem as an error.
2	REST SW abnormal	F15	Under normal operation (Self-Diagnostic Mode inclusive), this error occurs when the REST SW not detected within the specified time (5000 ms) shall be memorised.
3	Transmission error between CD servo LSI and micon	F26	Under normal operation (Self-Diagnostic Mode inclusive), this error occurs when the selection CD and SENSE ='H' is detected and SENSE ='L' detected within a fail-safe time (20 ms) after sys command transmission was sent.

9. Operation Checks and Main Component Replacement Procedures

"ATTENTION SERVICER"
Some chassis components maybe have sharp edges. Be careful when diassembling and servicing.

1. **This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.**
2. **For reassembly after operation checks or replacement, reverse the respective procedures. / Special reassembly procedures are described only when required.**
3. **Select items from the following index when checks or replacement are required.**
4. **Refer the Parts No. on the page of "Main component Replacement Procedures", if necessary.**

Content

- Checking Procedure for each major P.C.B.
1. ing for the Main, Panel, Tuner, Power & Cd Servo P.C.B ..... P.g. 8 ~ 11
- Main Component Replacement Procedures
1. Replacement of the Traverse Deck

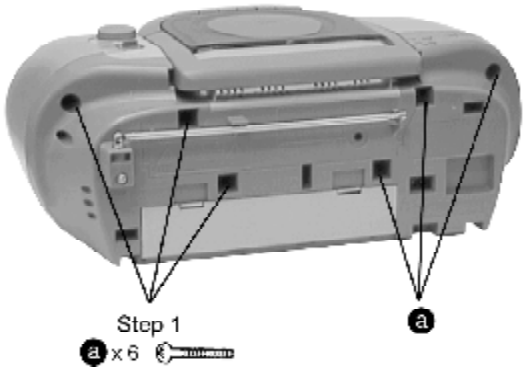
..... P.g.12
2. Installation of the CD Servo P.C.B. after Replacement P.g.13

Warning:

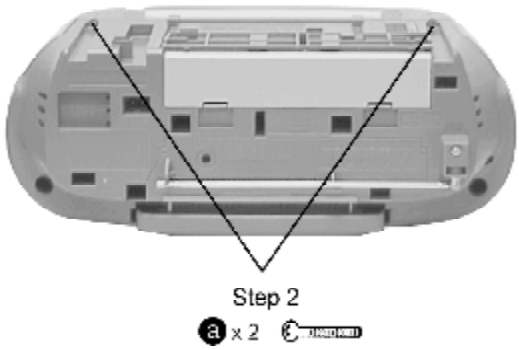
This product uses a laser diode. Refer to.

9.1. Checking Procedure for each major P.C.B.

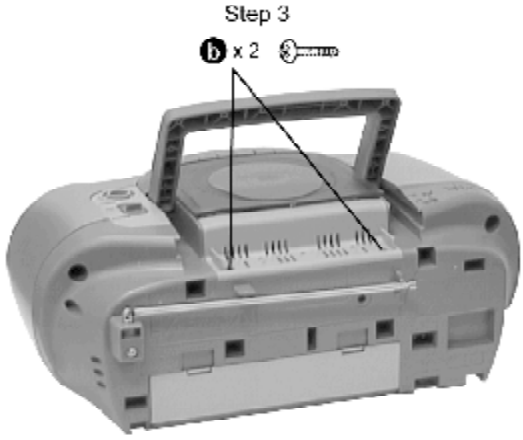
9.1.1. Checking for the Main, Panel, Tuner, Power & Cd Servo P.C.B



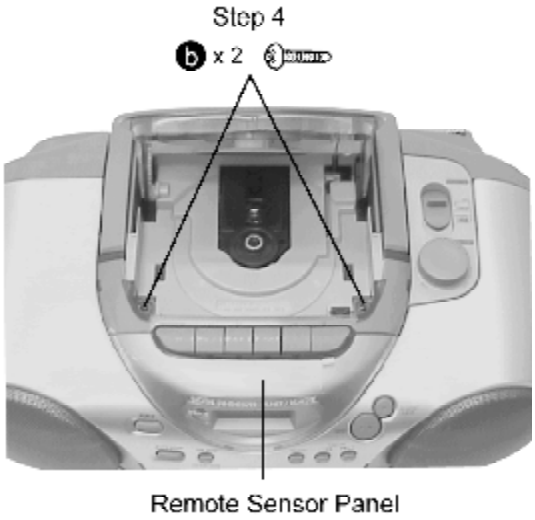
Step 1: Remove all the screws.



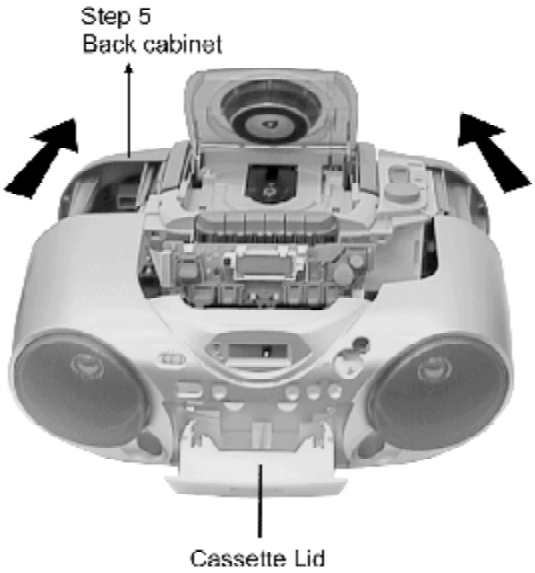
Step 2: Remove all the screws.



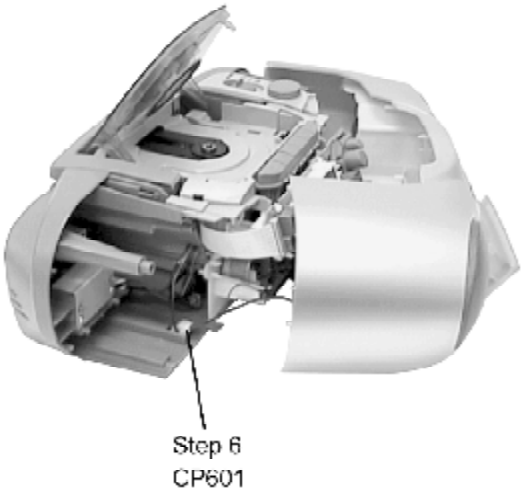
Step 3: Remove all the screws.



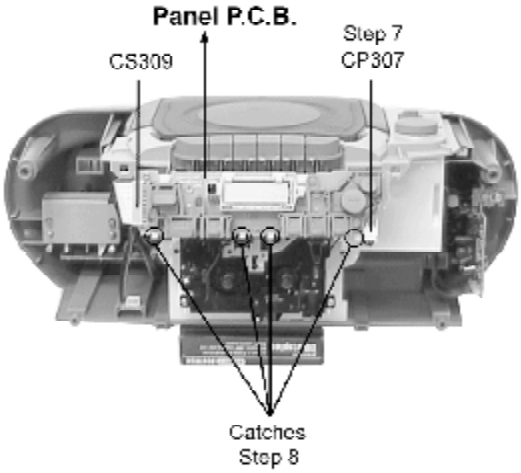
Step 4: Remove all the screws and take out the Remote Sensor Panel.



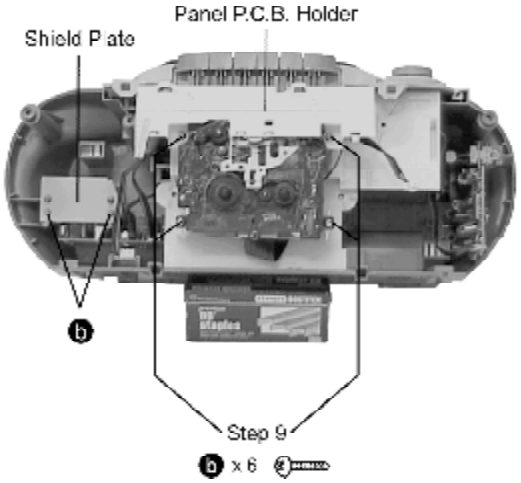
Step 5: Press STOP/EJECT button to release the cassette lid and pull the back cabinet as direction shown.



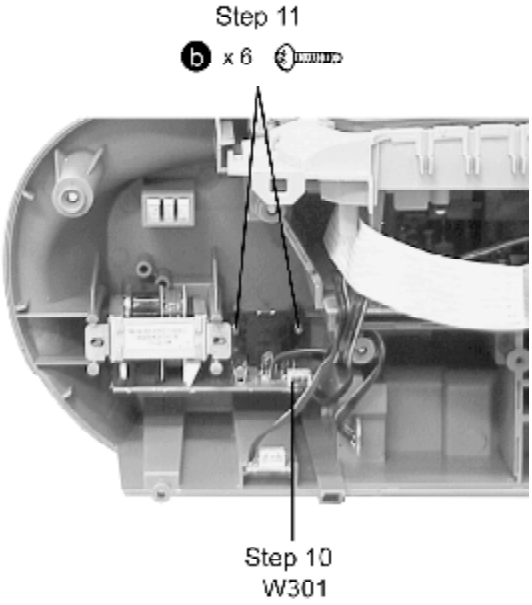
Step 6: Release the connector CP601.



Step 7: Release the connectors CP307 and CS309.
Step 8: Pull down all the catches to remove the Panel P.C.B.

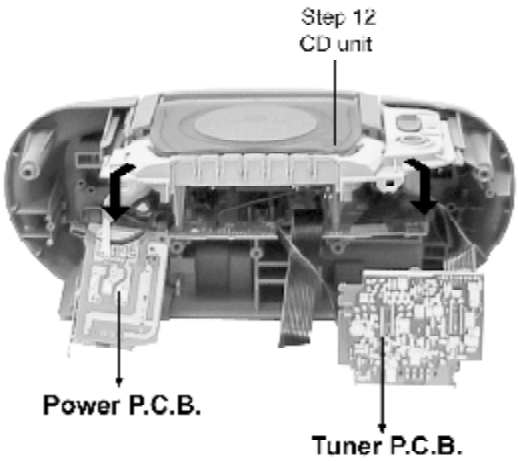


Step 9: Unscrew all the screws. Remove the Panel P.C.B. Holder.

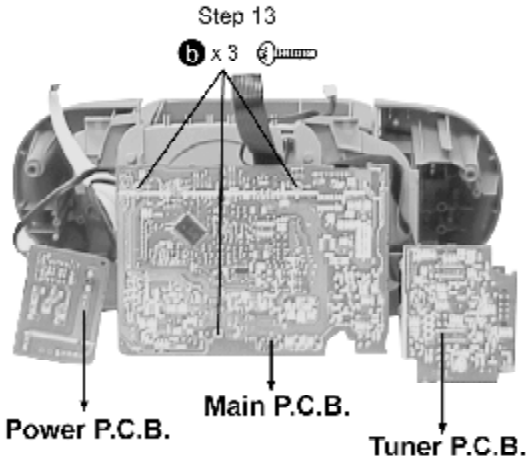


Step 10: Release the connector W301.

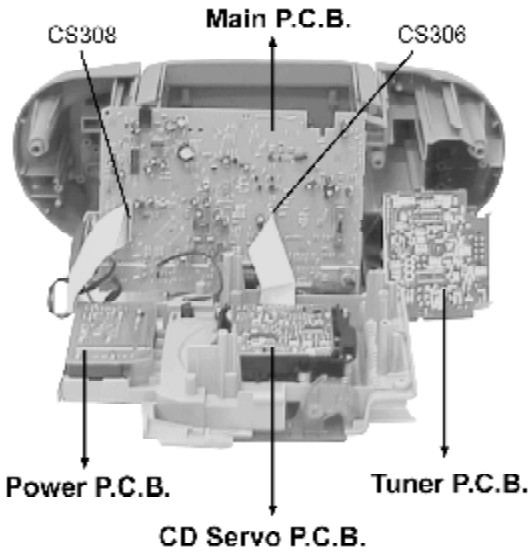
Step 11: Remove all the screws.



Step 12: Pull the CD unit as direction shown.



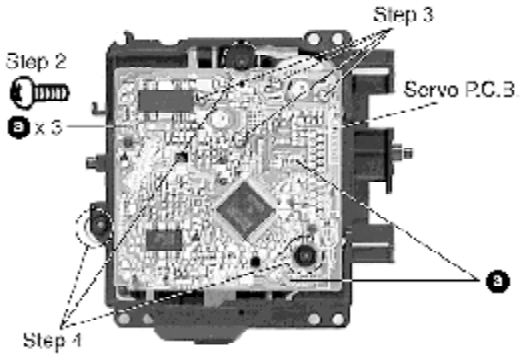
Step 13: Remove all the screws from Main P.C.B..



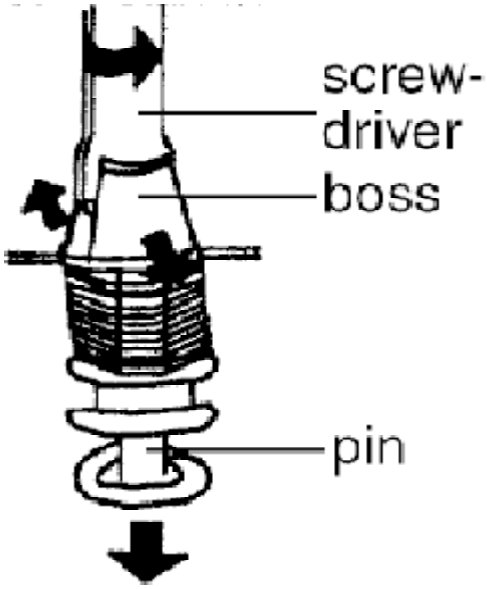
Rconnect back all connectors and wires to do the testing.

9.2. Main Component Replacement Procedures

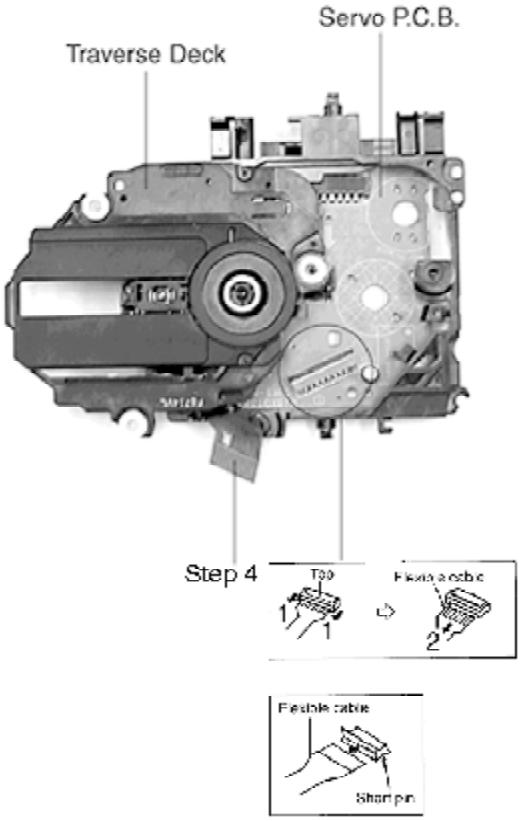
9.2.1. Replacement of the Traverse Deck



Step 2: Desolder the 4 legs of the 2 motors and pull out the Servo P.C.B.
Step 3: Widen the 3 bosses with a flat screwdriver and pull out the 3 pins. Then remove the Traverse Deck.



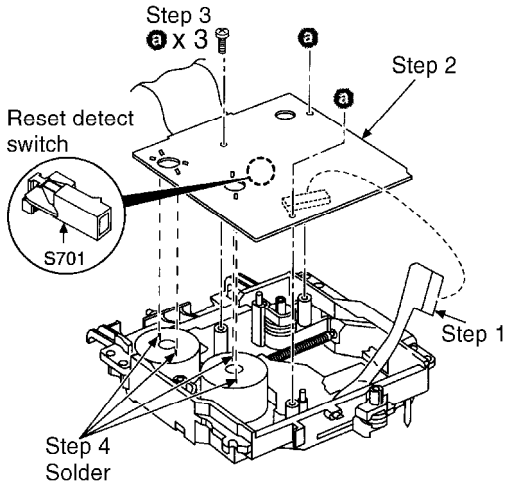
Note :
Insert a short pin into the flexible cable for traverse unit.



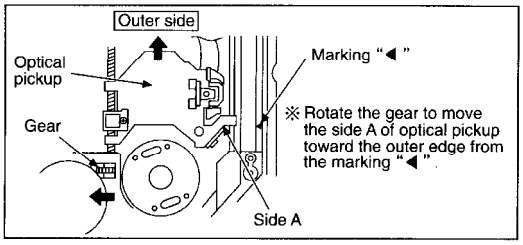
Step 4: Remove the flexible cable CN701.

- Removal of the flexible cable. Push the top of the connector in the direction of the arrow 1, and the pull out the flexible cable in the direction of the arrow 2.

9.2.2. Installation of the CD Servo P.C.B. after Replacement



Step 1 Connect the FFC board.
Step 2 Install the CD servo P.C.B. in the traverse deck assembly.


Outer side
Optical pickup
Gear
Marking "◀"
※ Rotate the gear to move the side A of optical pickup toward the outer edge from the marking "◀".
Side A

Note :

Before installing the CD servo P.C.B., move the optical pickup towards the outer edge from the marking (black triangle).

[Otherwise, the detect switch (S701) mounted on the CD servo P.C.B. may be damaged.]

10. Schematic Diagram

(All schematic diagrams may be modified at any time with the development of new technology.)

Notes:

S702	**Open Switch**
S703	**Rest Switch**
SW302	**Function Switch**
SW601	**Auto Scan Switch**
SW602	**XBS/TONE/HES Switch**
SW603	**Play Mode Switch**
SW604	**Memory Switch**
SW605	**REV Skip Switch**
SW606	**FWD Skip Switch**
SW607	**Play/Pause Switch**
SW608	**CD Stop Switch**
SW1001	**Record Switch**
SW1002	**Leaf Switch**
VR301	**Volume VR**

Battery Current:
Volume minimum :
119 mA (FM)
112 mA (AM)
187 mA (TAPE Playback)
169 mA (CD REC)
Volume maximum :
119 mA (FM)
112 mA (AM)
187 mA (FM RADIO REC)
181 mA (AM RADIO REC)
187 mA (TAPE Playback)
238 mA (CD REC)

- The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis. Accordingly, there may arise

some error in voltage values and waveforms depending upon the internal impedance of the tester or the measuring unit.

No mark	**...Playback**	**< >**	**...FM**
(( ))	**...CD**	**( )**	**...AM**

- Importance safety notice:

Components identifed by ⚠ mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

Caution!

IC, LSI and VLSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during repair.

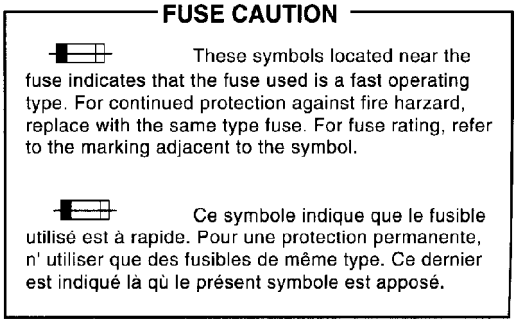
- Cover the parts boxes made of plastics with aluminium foil.

- Put a conductive mat on the work table.

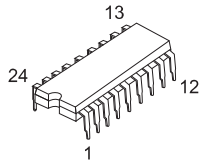
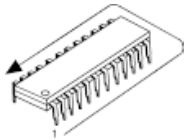
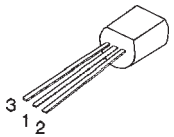
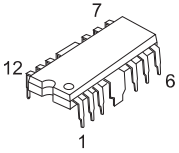
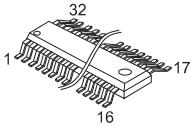
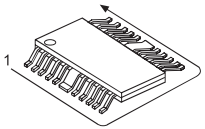
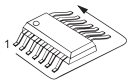
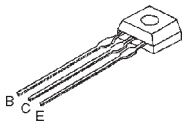
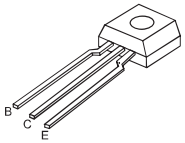
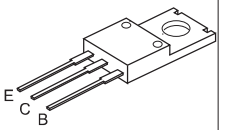
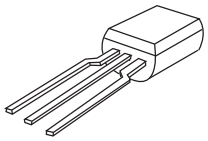
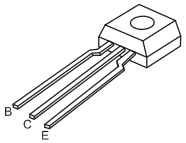
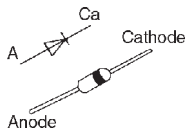
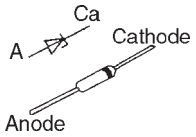
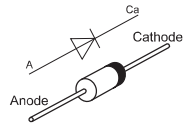
- Ground the soldering iron.

- Do not touch the pins of IC, LSI or VLSI with fingers directly.

CAUTION:
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE F501,F502, 1.25A 125V FUSE
RISK OF FIRE-REPLACE FUSE AS MARKED.


FUSE CAUTION
These symbols located near the fuse indicates that the fuse used is a fast operating type. For continued protection against fire harzard, replace with the same type fuse. For fuse rating, refer to the marking adjacent to the symbol.
Ce symbole indique que le fusible utilisé est à rapide. Pour une protection permanente, n' utiliser que des fusibles de même type. Ce dernier est indiqué là qù le présent symbole est apposé.

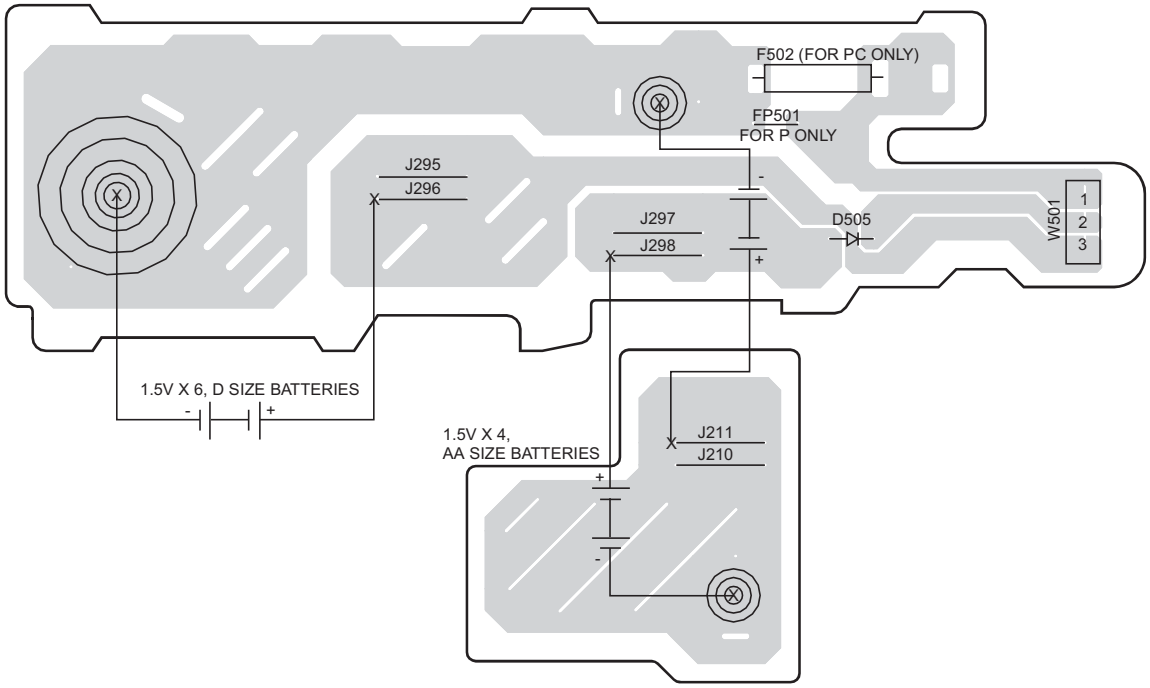
11. Printed Circuit Board

TA2149N (24P) 	LC72121T (22P) 	S81233SGUP PST9127T 	LA4627 (12P) 	BA6770FS (32P) 	BU18527KS (100P)
BA5948FP (28P) 	BU4066BCF (14P) 	BA3313L (12P) 	KRA102MTA KRC105MTA 2SA933STA 	KTC3199GRTA KTC3199BLTA 	KTA1046 
KTA12710YTA 	SVC384T-AL SVC237-AS 	RVD1SS133TA RB441QT-77 	MTZJ6R2CTA MTZJ7R5ATA MTZJ3R3BTA 		RL1N4003S-P 

A B C D E F G

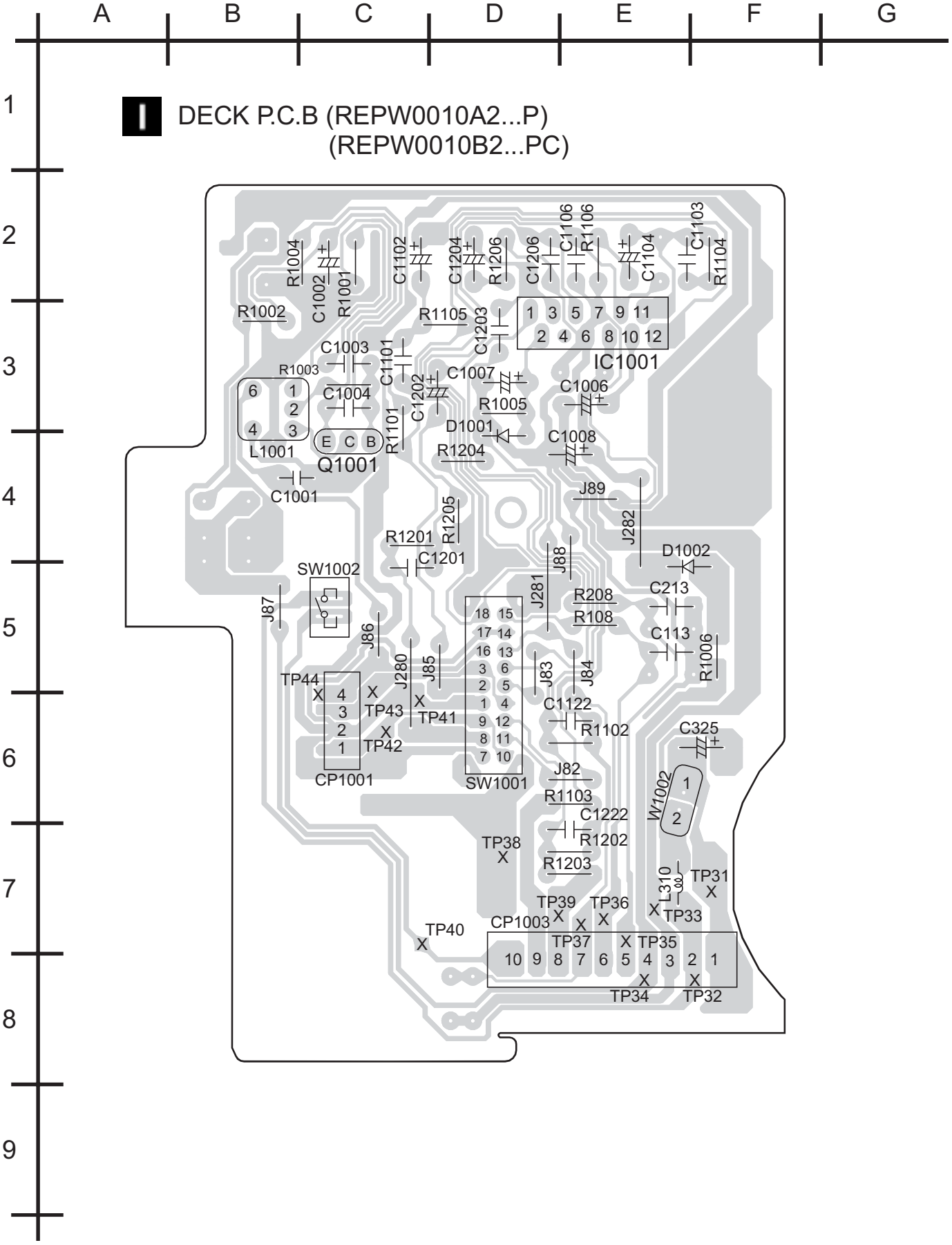
1 2 3 4 5 6 7 8 9

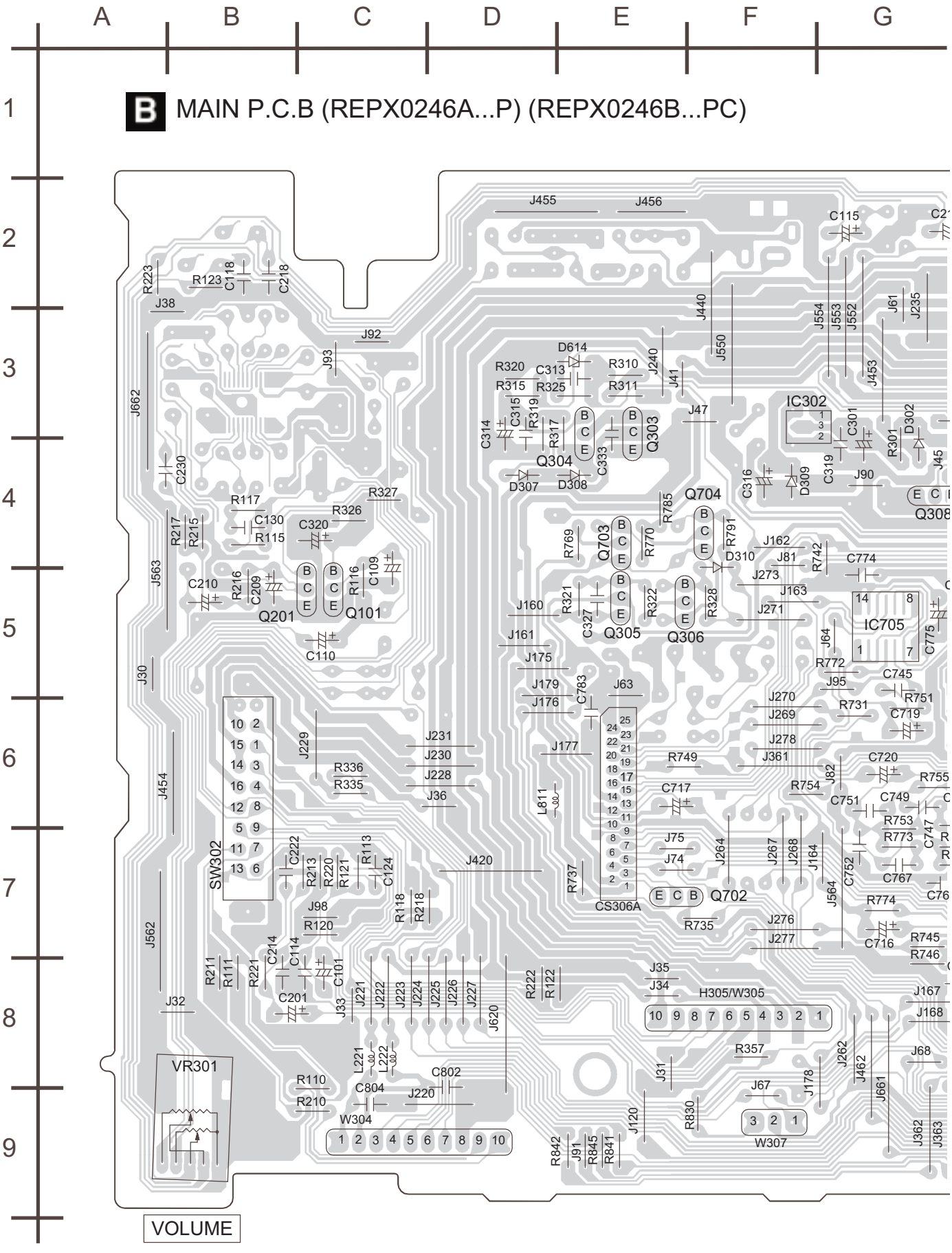
F BATTERY (1) P.C.B (REPW0010A1...P)
(REPW0010B1...PC)



G BATTERY (2) P.C.B
(REPW0010A1...P)
(REPW0010B1...PC)

I DECK P.C.B (REPW0010A2...P)
(REPW0010B2...PC)




B MAIN P.C.B (REPX0246A...P) (REPX0246B...PC)
A
B
C
D
E
F
G
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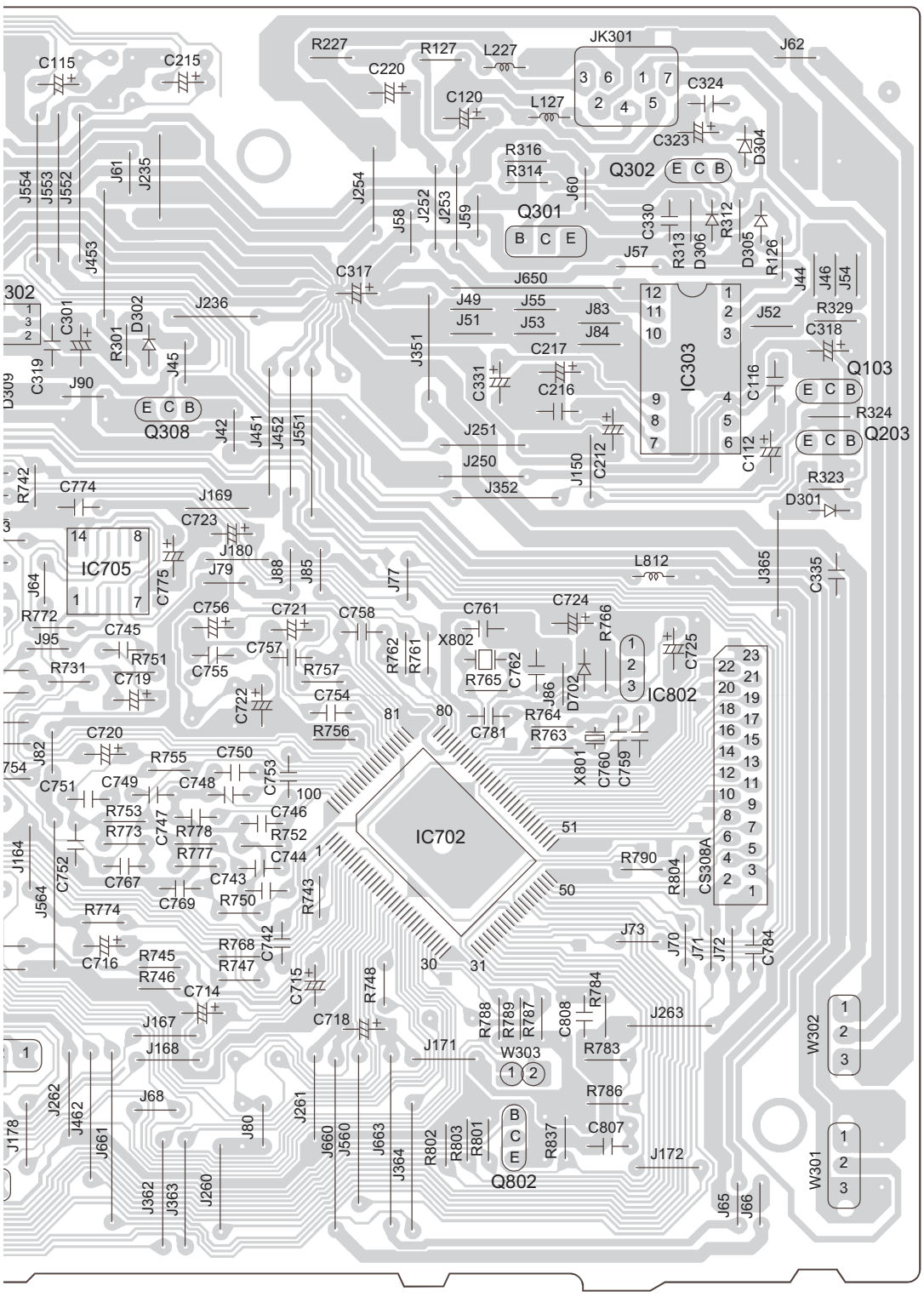
3
4
5
6
7
8
9
VOLUME
VR301
SW302
IC302
IC705
Q101
Q201
Q303
Q304
Q305
Q306
Q702
Q703
Q704
CS306A
H305/W305
W304
W307

G H I J K L M

HEADPHONE


JK301
IC303
IC705
IC702
IC802
Q308
Q302
Q301
Q103
Q203
Q802
W303
W302
W301
CS308A
X802
X801
L812
L227
L127
R227
R127
R316
R314
R329
R324
R323
C115
C215
C220
C120
C324
C323
C317
C318
C217
C216
C331
C330
C116
C112
C212
C150
D304
D306
D305
D301
D302
D309
R312
R313
R126
R301
C301
C319
R742
C774
R772
C745
R751
R731
C719
C775
C723
C721
C758
C761
C724
C725
R766
C762
R765
C722
C754
R756
C720
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C753
C746
R753
R773
R778
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C767
C743
C769
R750
R743
R774
C716
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R768
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C808
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R783
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J150
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J365
J335
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J85
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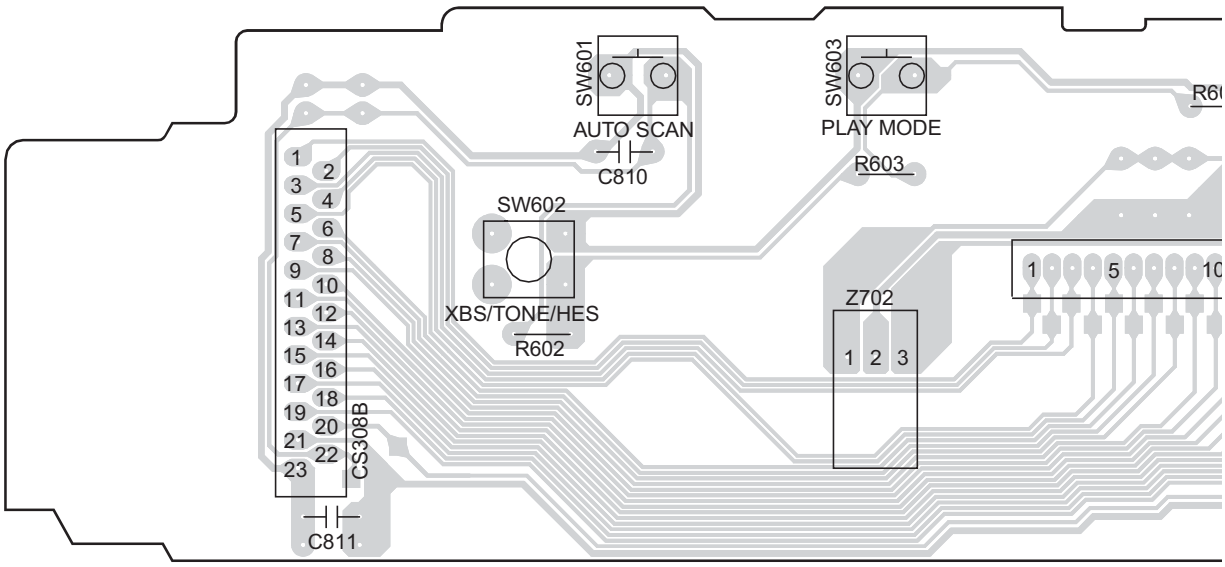
J346
J347
J348

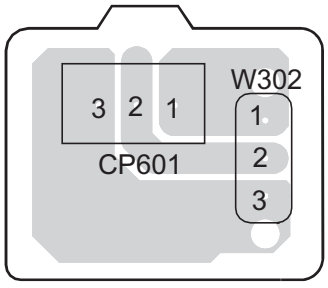
A B C D E F G

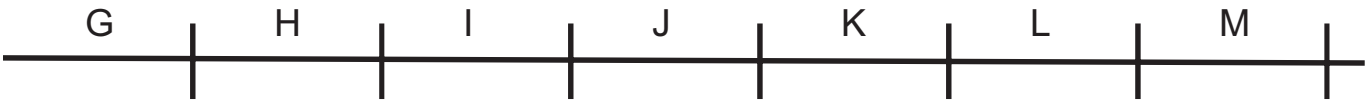
1 2 3 4 5 6 7 8 9

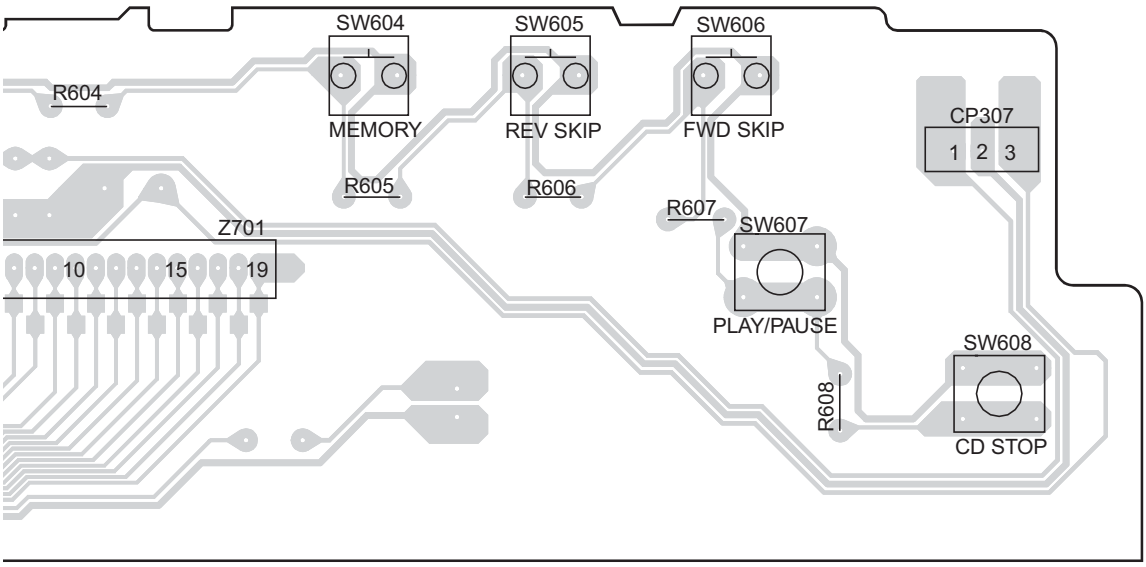
C PANEL P.C.B (REPX0246A...P) (REPX0246B...PC)



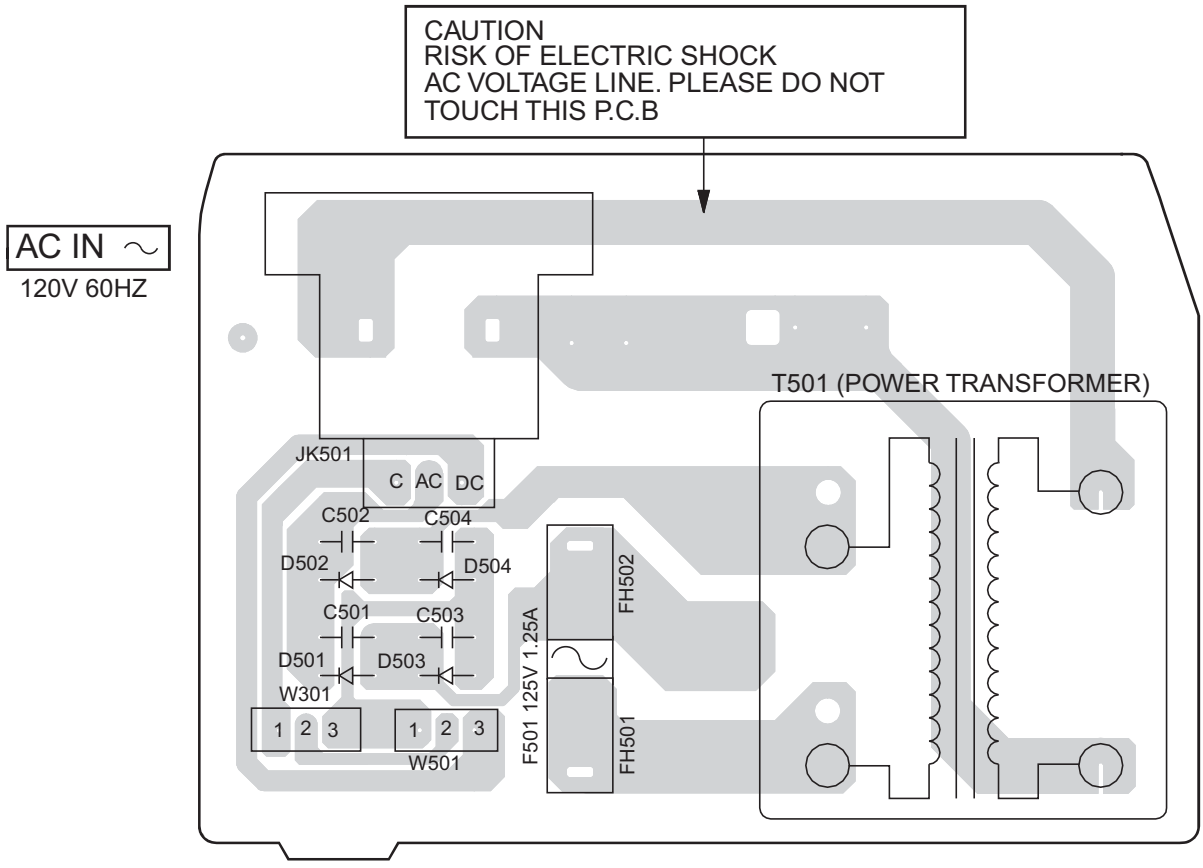
D SPEAKER TERMINAL P.C.B
(REPX0246A...P) (REPX0246B...PC)







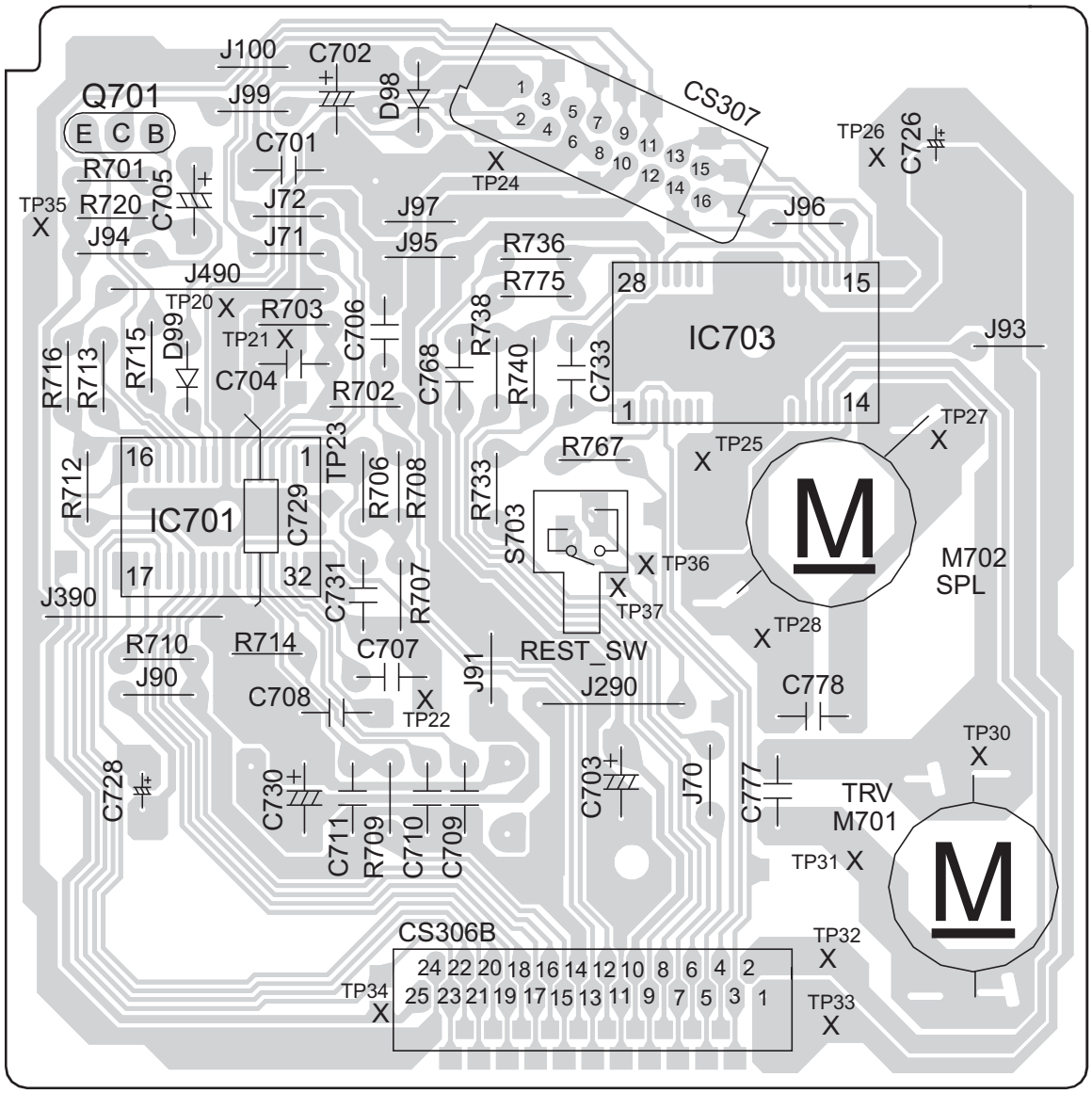
E POWER P.C.B (REPX0246A...P) (REPX0246B...PC)

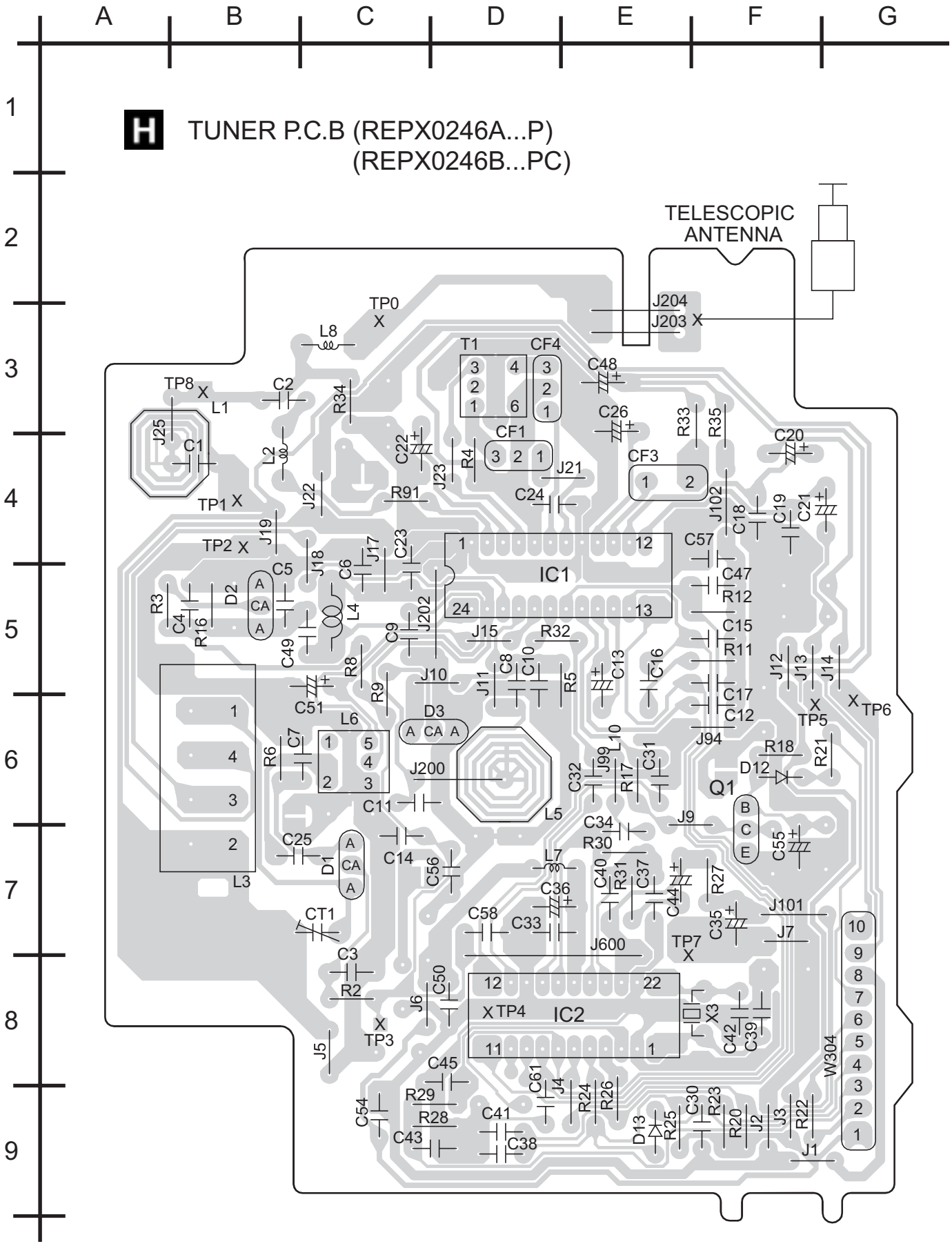


A B C D E F G

1 2 3 4 5 6 7 8 9

A CD SERVO P.C.B. (REPW0010A3...P)
(REPW0010B3...PC)




A
B
C
D
E
F
G
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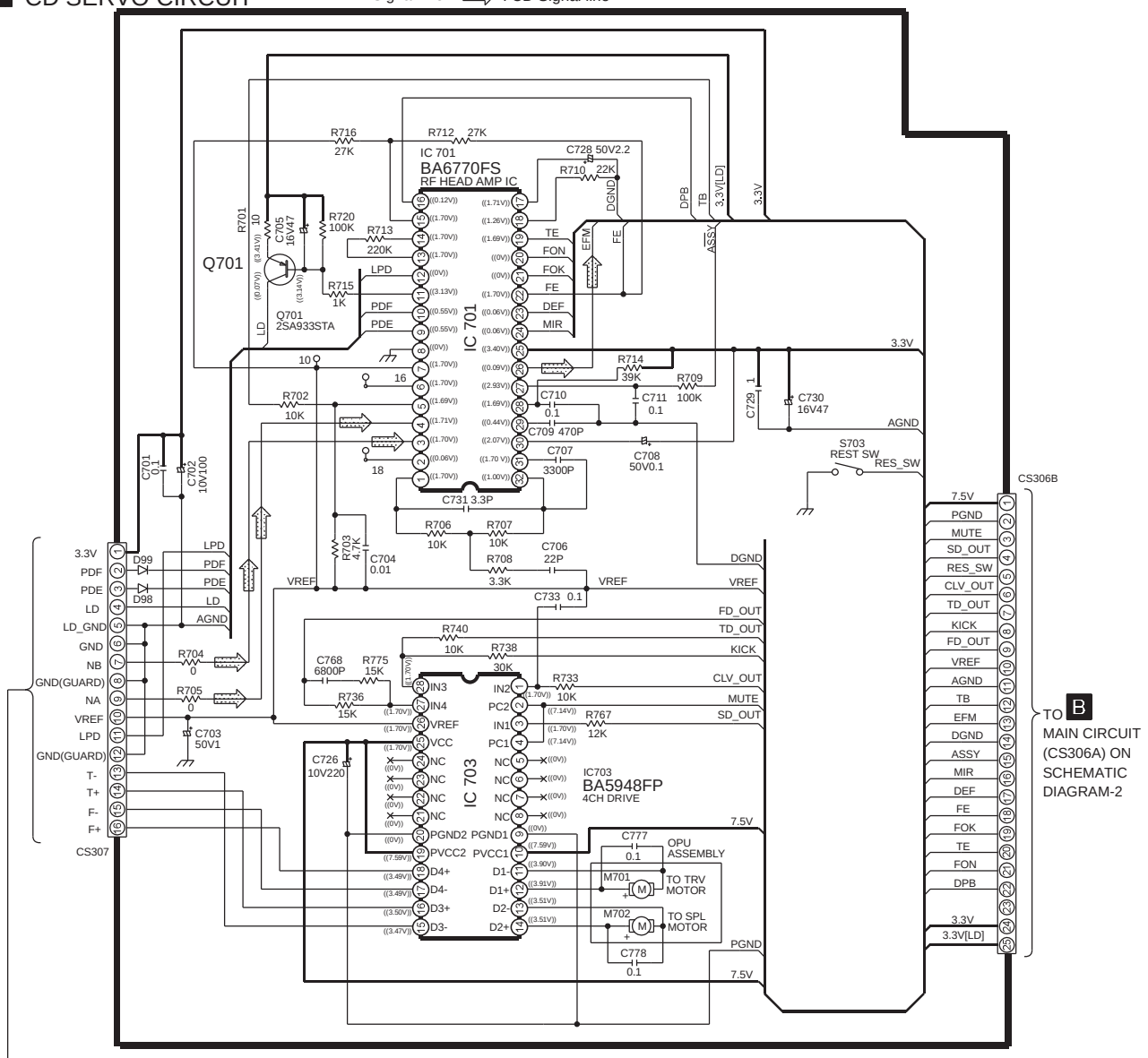
2
3
4
5
6
7
8
9
H
TUNER P.C.B (REPX0246A...P)
(REPX0246B...PC)
TELESCOPIC
ANTENNA
J204
J203
TP0
L8
T1
CF4
CF1
CF3
IC1
IC2
Q1
D3
L6
L5
L3
TP1
TP2
TP3
TP4
TP5
TP6
TP7
TP8
L1
L2
L4
J600
W304
X3
CT1

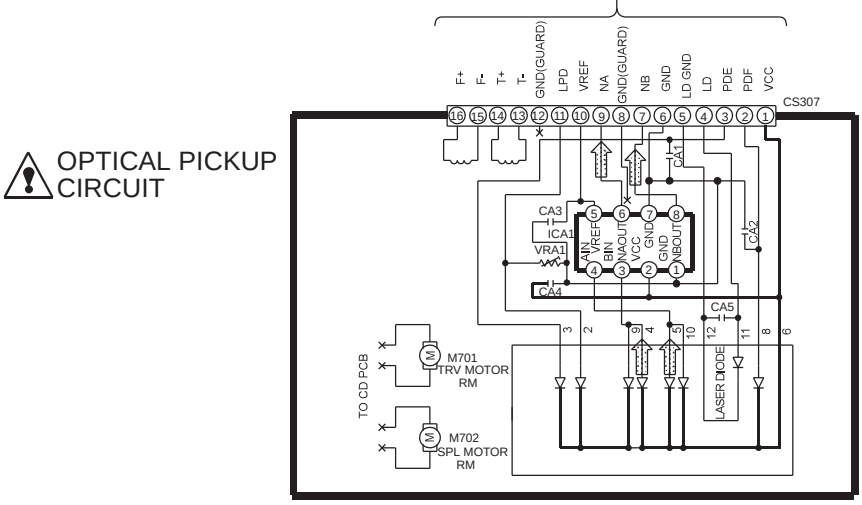
SCHEMATIC DIAGRAM-1

A CD SERVO CIRCUIT

: +B Signal line : CD Signal line



OPTICAL PICKUP CIRCUIT



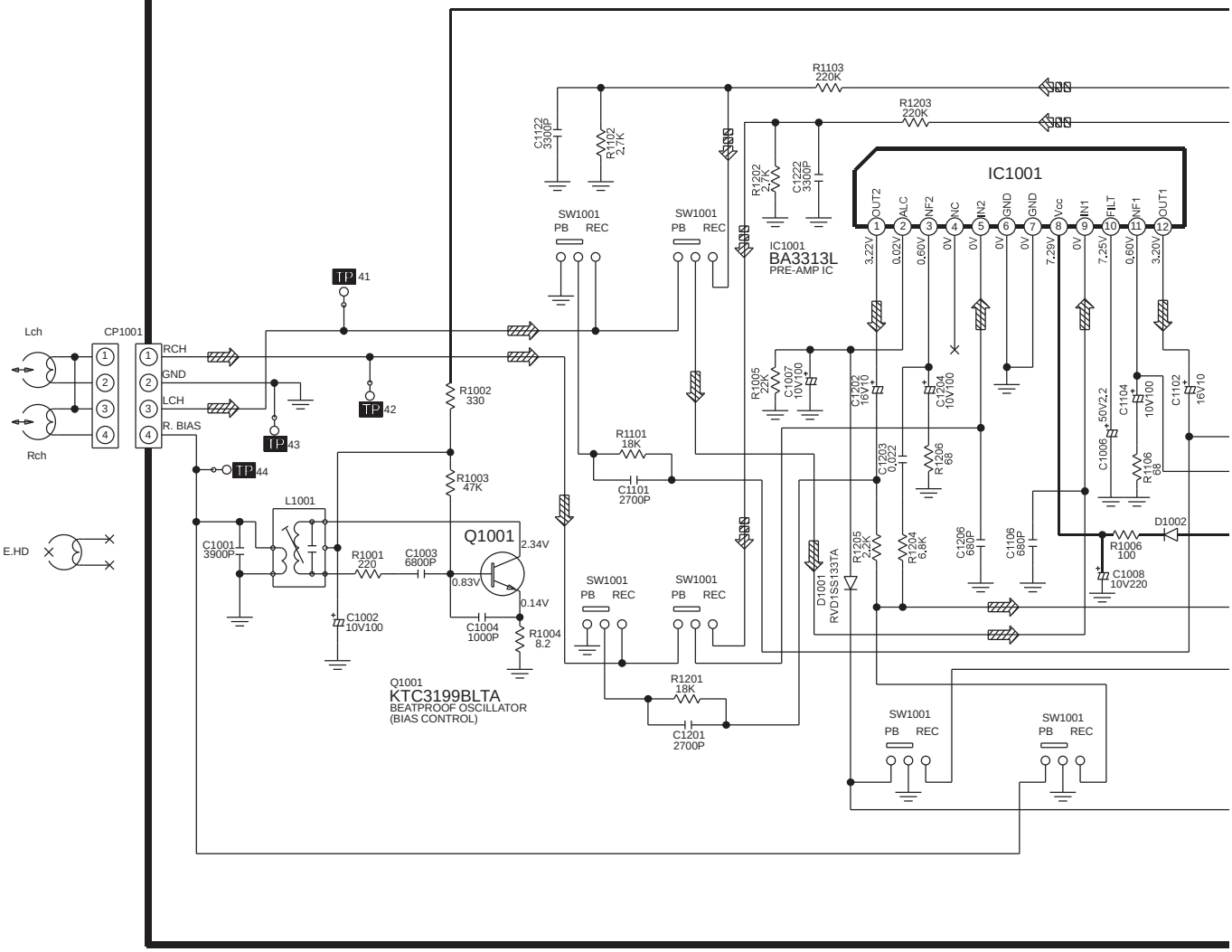
SCHEMATIC DIAGRAM-5

I DECK CIRCUIT

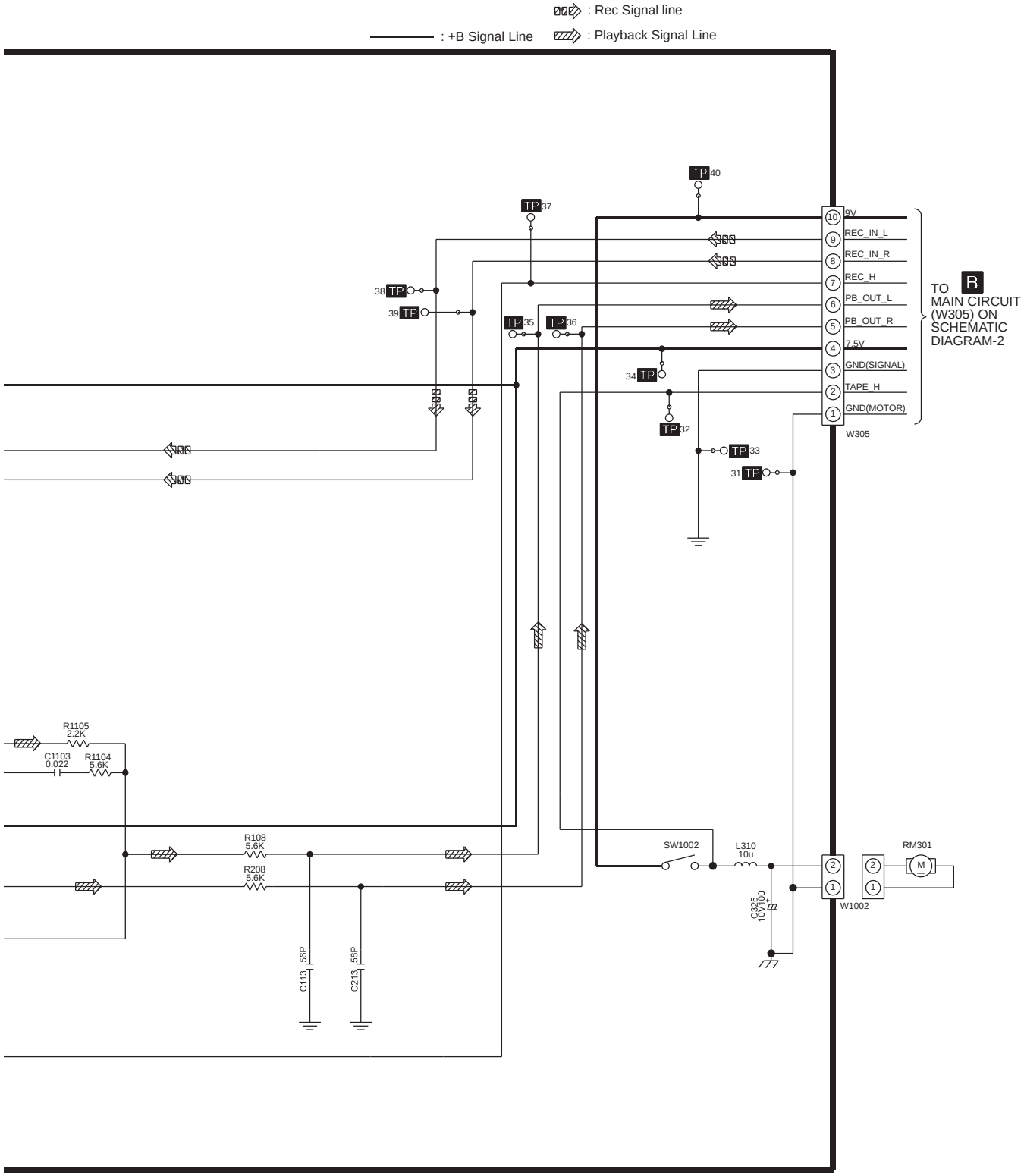
: +B Signal Line

: Rec Signal line

: Playback Signal Line



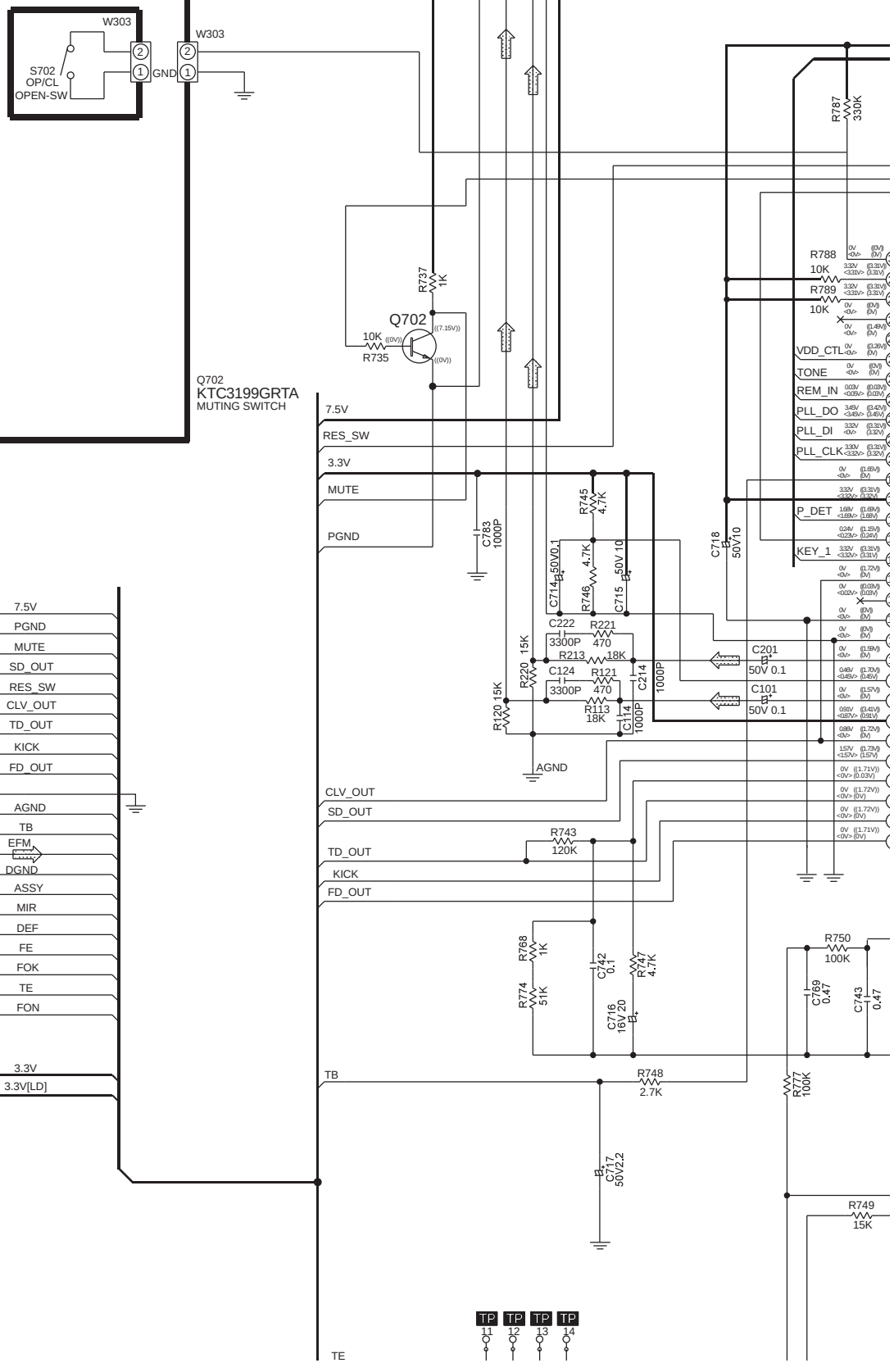
SCHEMATIC DIAGRAM-6

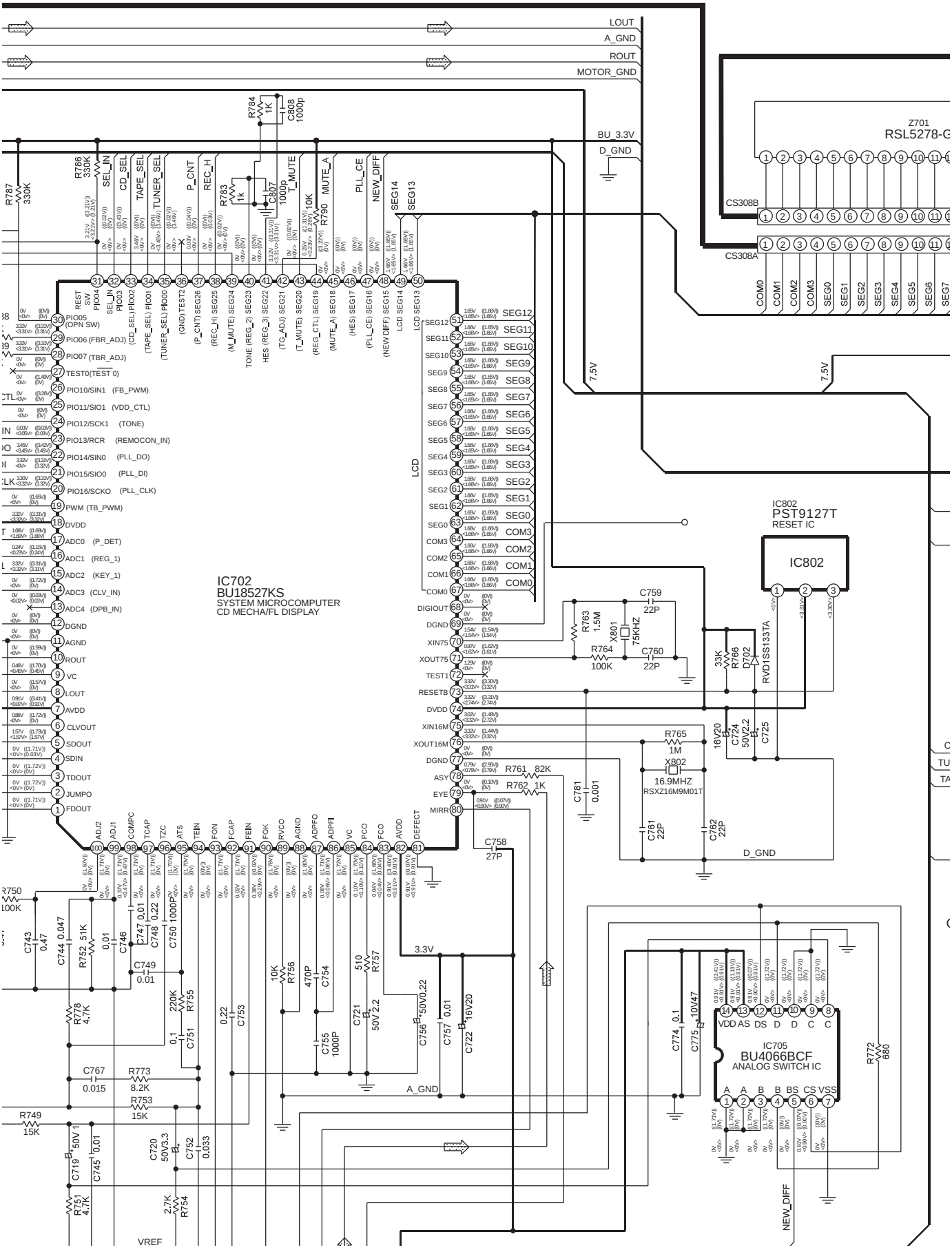


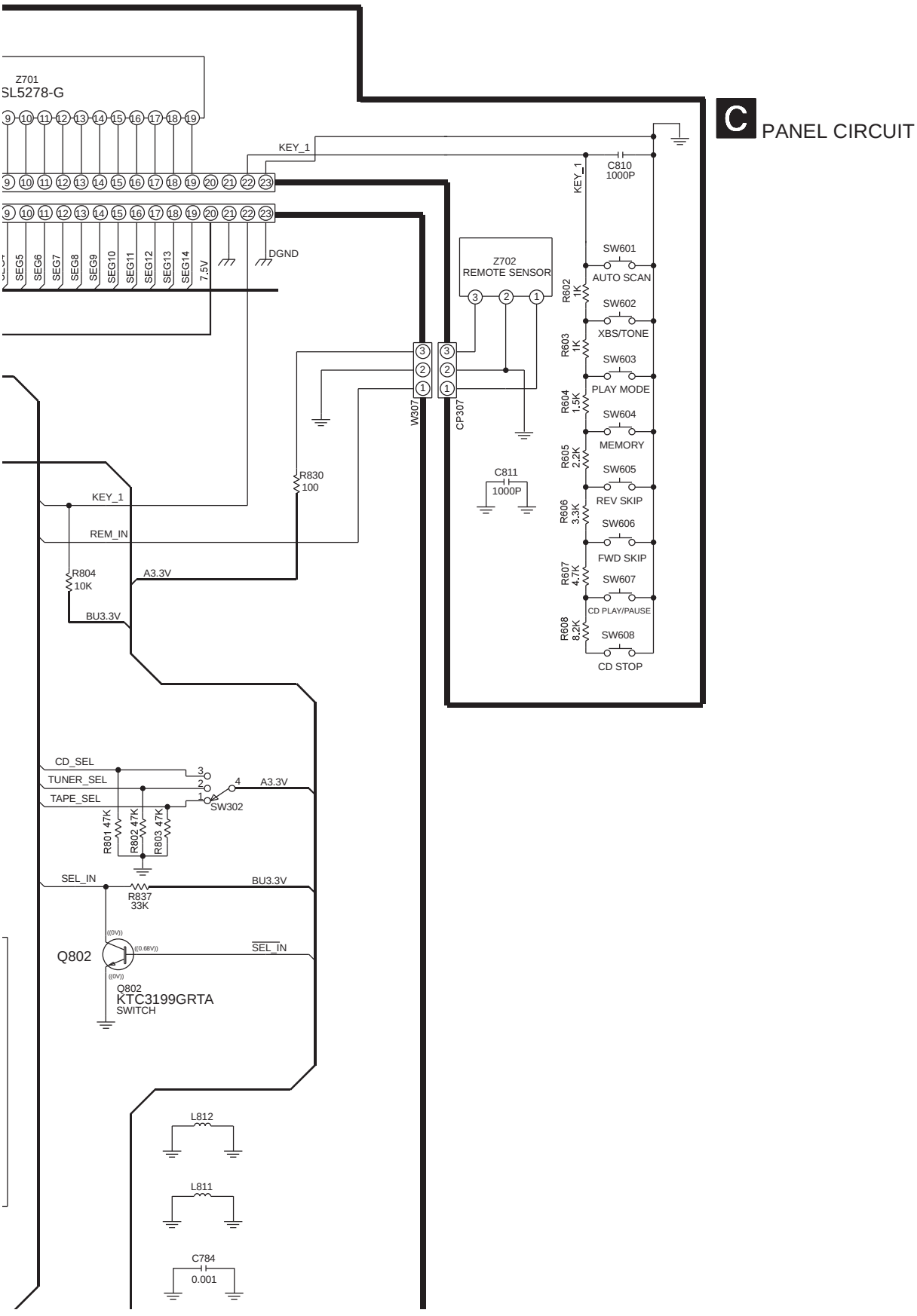
SCHEMATIC DIAGRAM-2

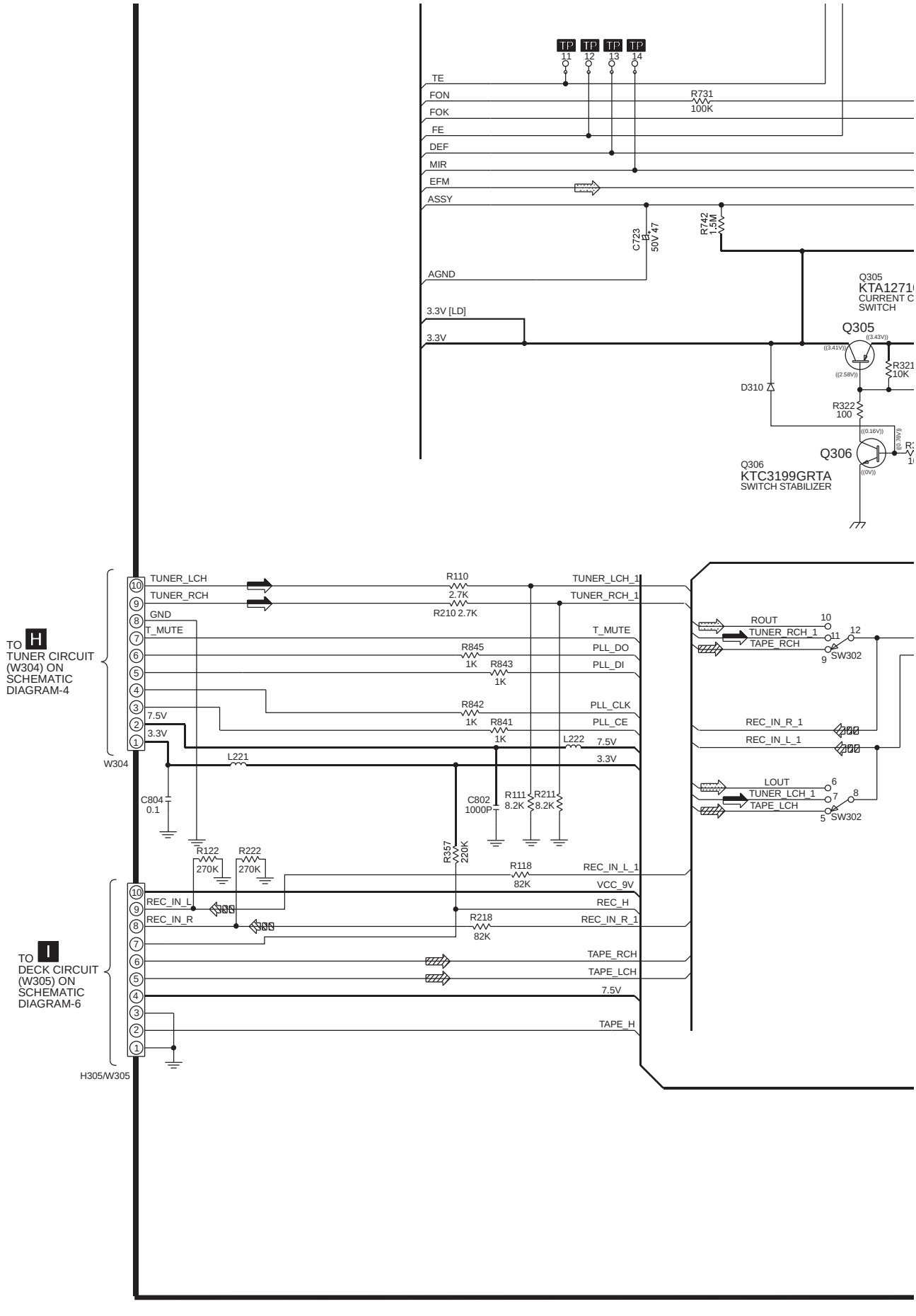
B MAIN CIRCUIT

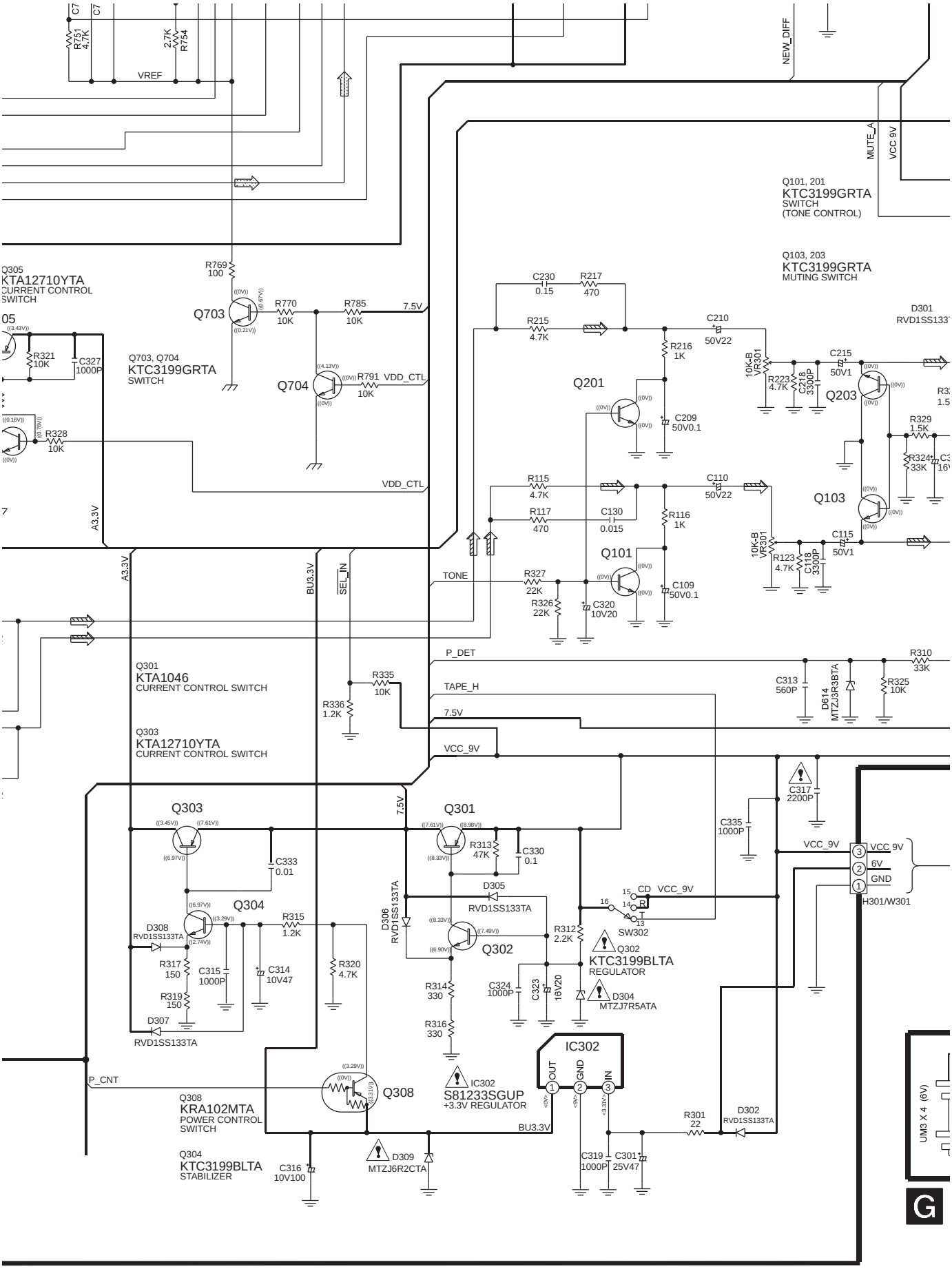
: Main Signal line
: AM/FM Signal line
: CD Signal line
: Playback Signal line
: Rec Signal line
: +B Signal line

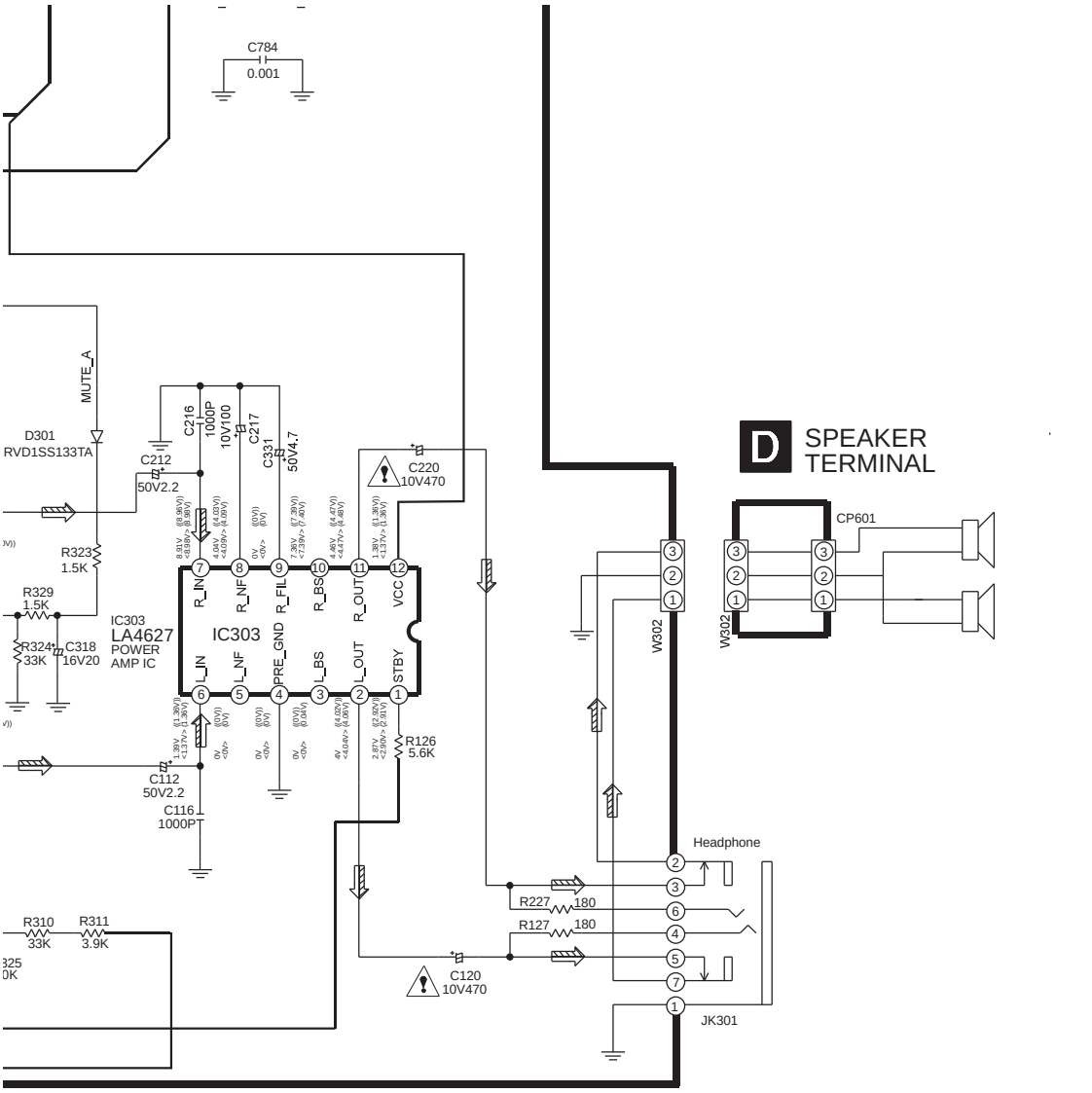


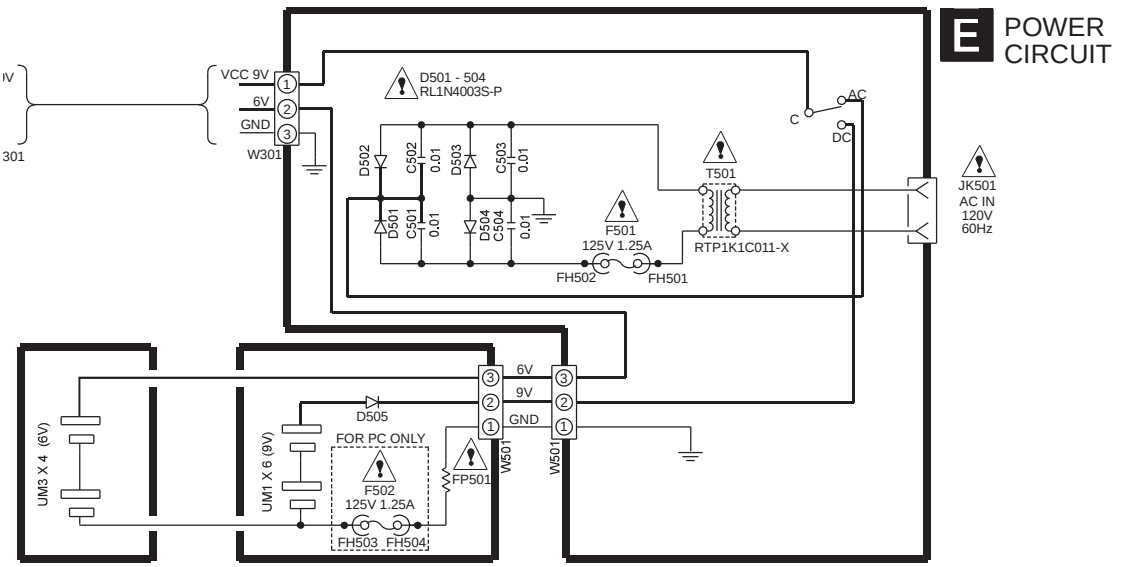

LOUT
A_GND
ROUT
MOTOR_GND
BU_3.3V
D_GND
7.5V
IC702
BU18527KS
SYSTEM MICROCOMPUTER
CD MECHA/FL DISPLAY
IC802
PST9127T
RESET IC
IC705
BU4066BCF
ANALOG SWITCH IC
Z701
RSL5278-G
CS308B
CS308A
LCD
3.3V
A_GND
D_GND
VREF
NEW_DIFF


C PANEL CIRCUIT
Z701
SL5278-G
KEY_1
C810
1000P
SW601
AUTO SCAN
R602
1K
SW602
XBS/TONE
R603
1K
SW603
PLAY MODE
R604
1.5K
SW604
MEMORY
R605
2.2K
SW605
REV SKIP
R606
3.3K
SW606
FWD SKIP
R607
4.7K
SW607
CD PLAY/PAUSE
R608
8.2K
SW608
CD STOP
Z702
REMOTE SENSOR
W307
CP307
C811
1000P
R830
100
REM_IN
R804
10K
A3.3V
BU3.3V
DGND
SEG5
SEG6
SEG7
SEG8
SEG9
SEG10
SEG11
SEG12
SEG13
SEG14
7.5V
CD_SEL
TUNER_SEL
TAPE_SEL
SW302
R801 47K
R802 47K
R803 47K
SEL_IN
R837
33K
Q802
KTC3199GRTA
SWITCH
L812
L811
C784
0.001


TP 11
TP 12
TP 13
TP 14
TE
FON
FOK
FE
DEF
MIR
EFM
ASSY
AGND
3.3V [LD]
3.3V
R731
100K
R742
1.5M
C723
0.47
50V
Q305
KTA1271
CURRENT C
SWITCH
Q305
((3.43V))
((3.41V))
((2.58V))
R321
10K
D310
R322
100
((0.16V))
((0.78V))
Q306
((0V))
Q306
KTC3199GRTA
SWITCH STABILIZER
TO H
TUNER CIRCUIT
(W304) ON
SCHEMATIC
DIAGRAM-4
W304
TUNER_LCH
TUNER_RCH
GND
T_MUTE
7.5V
3.3V
R110
2.7K
R210 2.7K
TUNER_LCH_1
TUNER_RCH_1
T_MUTE
R845
1K
R843
1K
PLL_DO
PLL_DI
R842
1K
R841
1K
PLL_CLK
PLL_CE
L222
7.5V
3.3V
L221
C804
0.1
C802
1000P
R111
8.2K
R211
8.2K
R122
270K
R222
270K
R357
220K
R118
82K
REC_IN_L_1
VCC_9V
REC_H
REC_IN_R_1
R218
82K
TAPE_RCH
TAPE_LCH
7.5V
TAPE_H
REC_IN_L
REC_IN_R
TO I
DECK CIRCUIT
(W305) ON
SCHEMATIC
DIAGRAM-6
H305/W305
ROUT
TUNER_RCH_1
TAPE_RCH
SW302
LOUT
TUNER_LCH_1
TAPE_LCH
SW302
REC_IN_R_1
REC_IN_L_1


C7
C7
R751 4.7K
2.7K R754
VREF
NEW_DIFF
MUTE_A
VCC 9V
Q101, 201
KTC3199GRTA
SWITCH
(TONE CONTROL)
Q103, 203
KTC3199GRTA
MUTING SWITCH
Q305
KTA12710YTA
CURRENT CONTROL
SWITCH
R769 100
Q703
R770 10K
R785 10K
7.5V
Q704
R791 10K
VDD_CTL
Q703, Q704
KTC3199GRTA
SWITCH
R321 10K
C327 1000P
R328 10K
VDD_CTL
A3.3V
C230 0.15
R217 470
R215 4.7K
C210 50V22
R216 1K
Q201
C209 50V0.1
10K-B VR301
C215 50V1
R223 4.7K
C218 330P
Q203
R329 1.5K
R324 33K
R115 4.7K
C110 50V22
R117 470
C130 0.015
R116 1K
Q103
Q101
C109 50V0.1
C115 50V1
R123 4.7K
C108 330P
TONE
R327 22K
R326 22K
C320 10V20
P_DET
R310 33K
C313 560P
D614 MTZJ3R3BTA
R325 10K
Q301
KTA1046
CURRENT CONTROL SWITCH
R335 10K
R336 1.2K
TAPE_H
7.5V
Q303
KTA12710YTA
CURRENT CONTROL SWITCH
VCC_9V
BU3.3V
SEL_IN
Q303
Q301
C317 2200P
C335 1000P
VCC_9V
VCC 9V
6V
GND
H301/W301
C333 0.01
Q304
R313 47K
C330 0.1
D305
RVD1SS133TA
D306
RVD1SS133TA
CD
VCC_9V
SW302
R312 2.2K
Q302
KTC3199BLTA
REGULATOR
D308
RVD1SS133TA
R315 1.2K
R317 150
C315 1000P
C314 10V47
R320 4.7K
R319 150
D307
RVD1SS133TA
Q302
R314 330
C324 1000P
C323 16V20
D304
MTZJ7R5ATA
R316 330
IC302
S81233SGUP
+3.3V REGULATOR
IC302
OUT
GND
IN
P_CNT
Q308
KRA102MTA
POWER CONTROL
SWITCH
Q308
R301 22
D302
RVD1SS133TA
BU3.3V
Q304
KTC3199BLTA
STABILIZER
C316 10V100
D309
MTZJ6R2CTA
C319 1000P
C301 25V47
UM3 X 4 (6V)
G


C784
0.001
MUTE_A
D301
RVD1SS133TA
C212
50V2.2
C216
1000P
C217
10V100
C331
50V4.7
C220
10V470
R323
1.5K
R329
1.5K
R324
33K
C318
16V20
IC303
LA4627
POWER
AMP IC
IC303
R_IN
R_NF
R_FIL
R_BS
R_OUT
VCC
L_IN
L_NF
PRE_GND
L_BS
L_OUT
STBY
R126
5.6K
C112
50V2.2
C116
1000PT
R310
33K
R311
3.9K
C120
10V470
W302
D SPEAKER
TERMINAL
CP601
W302
Headphone
R227
180
R127
180
JK301


E POWER
CIRCUIT
VCC 9V
6V
GND
W301
D501 - 504
RL1N4003S-P
AC
C
DC
D502
C502
0.01
D503
C503
0.01
T501
JK501
AC IN
120V
60Hz
D501
C501
0.01
D504
C504
0.01
F501
125V 1.25A
RTP1K1C011-X
FH502
FH501
6V
9V
GND
D505
FOR PC ONLY
W501
W501
UM3 X 4 (6V)
UM1 X 6 (9V)
F502
125V 1.25A
FH503 FH504
FP501

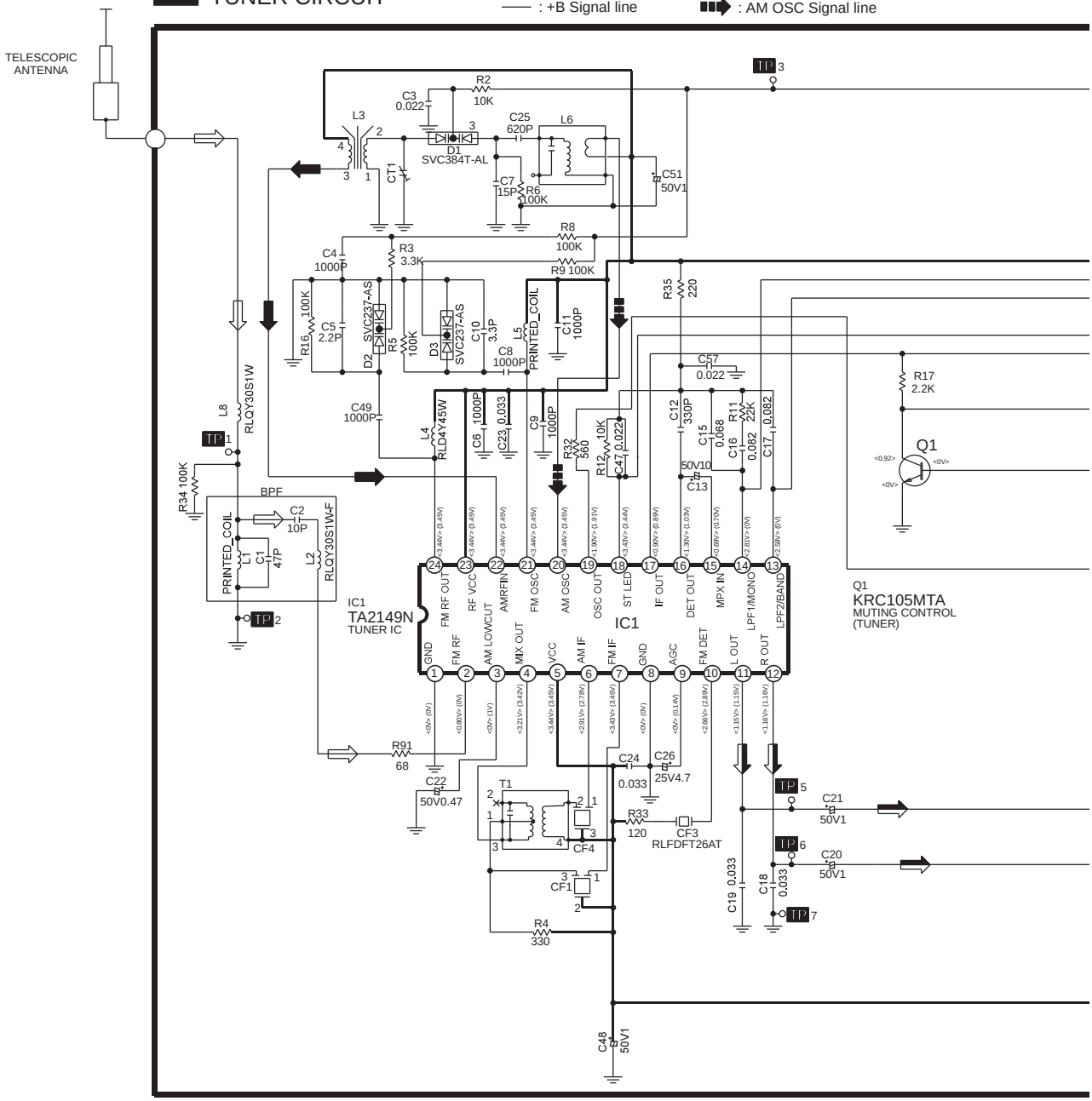
G BATTERY(2)
CIRCUIT

F BATTERY(1)
CIRCUIT

SCHEMATIC DIAGRAM-3

H TUNER CIRCUIT

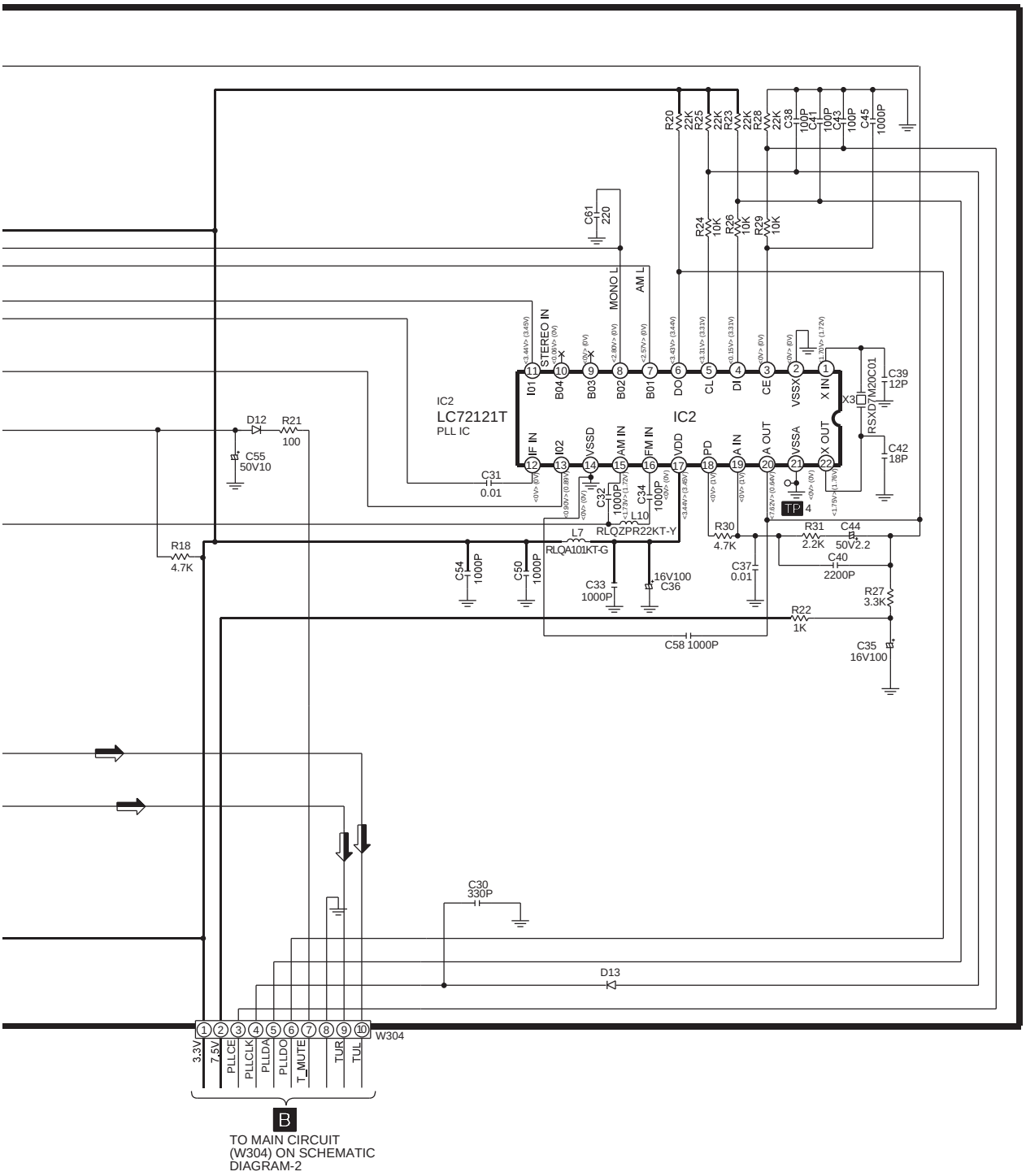
: FM Signal line
: +B Signal line
: AM Signal line
: AM/FM Signal line
: AM OSC Signal line



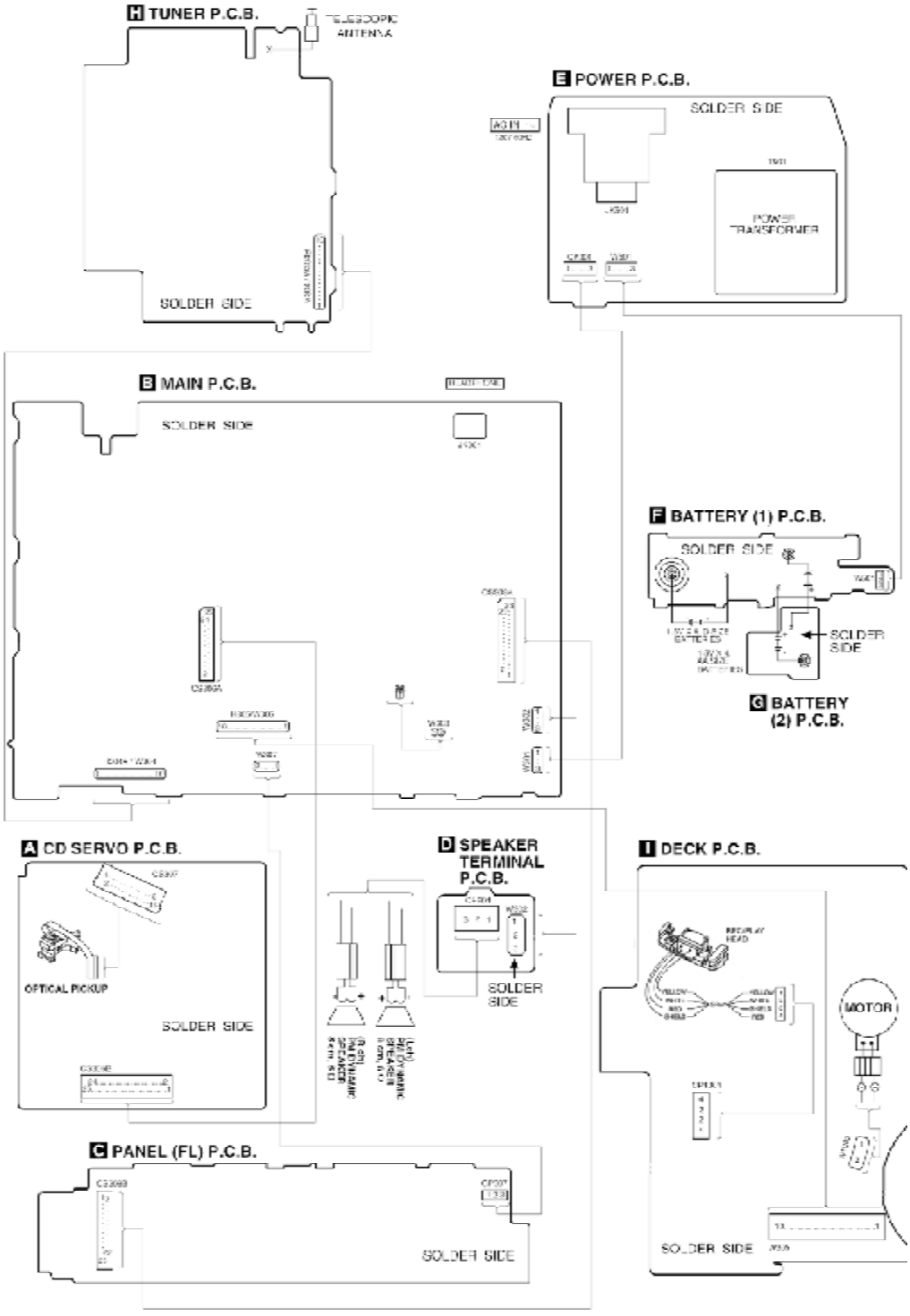
SCHEMATIC DIAGRAM-4

: AM/FM Signal line

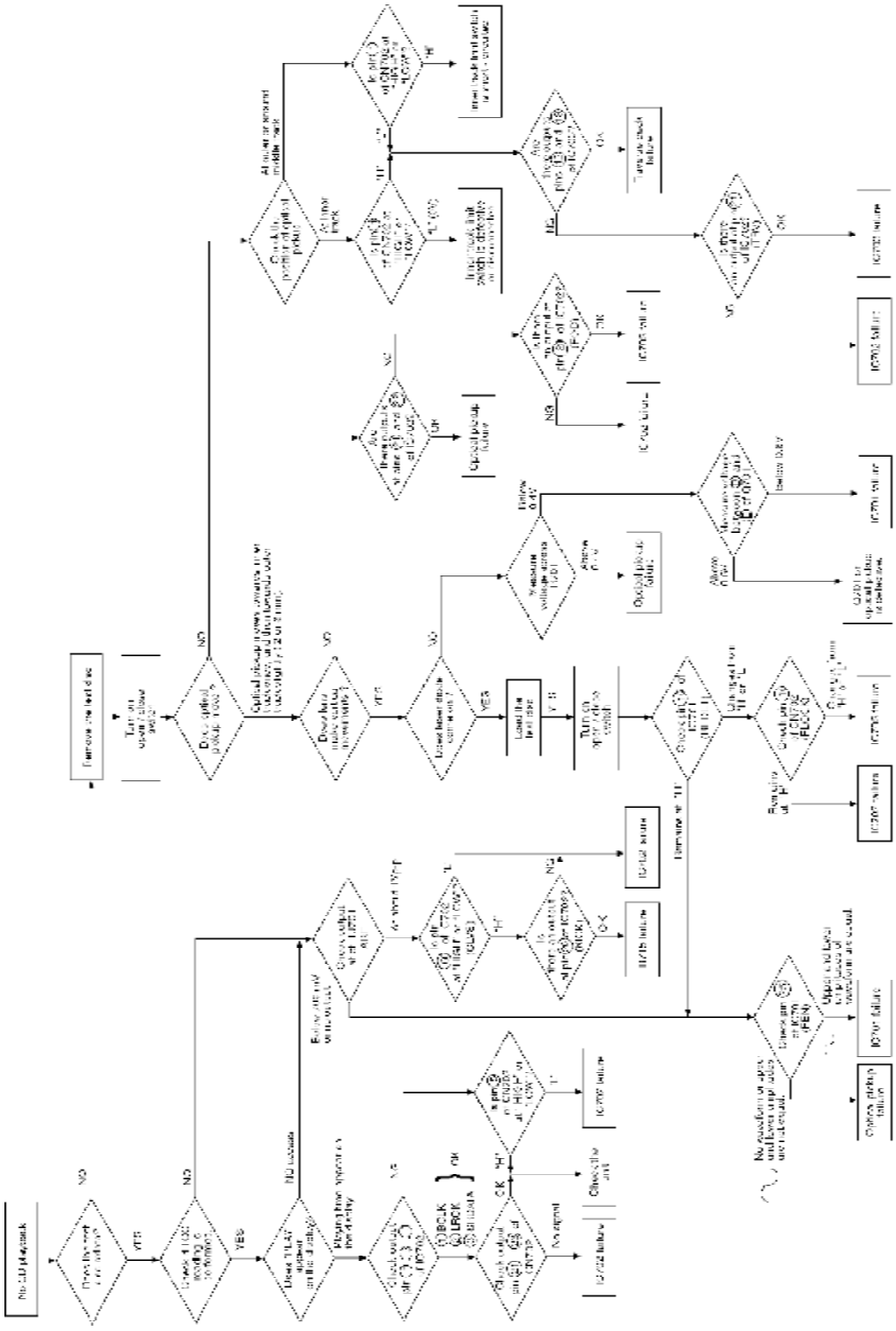
: +B Signal line



12. Wiring Connection Diagram



13. Troubleshooting Guide



14. Measurements and Adjustments

14.1. Tuner Section

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT
1. Set volume control to maximum. 2. Set power source voltage to 9V. 3. Output of signal generator should be no higher than necessary to obtain an output reading.

■ AM-RF ALIGNMENT

Signal Generator or Sweep Generator		Radio Dial Setting	Indicator (Electronic Voltmeter or Oscilloscope)	Adjustment / (Shown in Fig.1)	R
Connections	Frequency				
Fashion a loop of several turns of wire and radiate signal into loop of receiver.	540 kHz	Point of non-interference.(on/ about 600kHz)	Headphone Jack (32 Ω) Fabricate the plug as shown in Fig.2 and then connect the lead wires of the plug to the measuring instrument.	[*1] L3 (AM ANT Coil)	Ad ma c
Fashion a loop of several turns of wire and radiate signal into loop of receiver.	1400 kHz	Point of non-interference.(on/ about 600kHz)	Headphone Jack (32 Ω) Fabricate the plug as shown in Fig.2 and then connect the lead wires of the plug to the measuring instrument.	CT1 (AM ANT Trimmer)	Ad ma c

[*1] Fix antenna coil with wax after completing alignment.

■ FM-RF ALIGNMENT

Signal Generator or Sweep Generator		Radio Dial Setting	Indicator (Electronic Voltmeter or Oscilloscope)	Adjustment / (Shown in Fig.1)	R
Connections	Frequency				
Fashion a loop of several turns of wire and radiate signal into loop of receiver.	87.9 kHz	Point of non-interference.(on / about 600kHz)	Headphone Jack (32 Ω) Fabricate the plug as shown in Fig.2 and then connect the lead wires of the plug to the measuring instrument.	[*1] L4 (FM ANT Coil)	Ad ma c

[*1] Fix antenna coil with wax after completing alignment.

■ HEAD AZIMUTH ALIGNMENT

Test Tape	Iindicator (Electronic Voltmeter or Oscilloscope)	Adjustment	Remark
ATT-113CN (8 kHz, -10 dB)	Headphone Jack (32 Ω) Fabricate the plug as shown in Fig.2 and then connect the lead wires of the plug to the measuring instrument.	Azimuth Screw (Shown in Fig.3)	1. Insert a test tape and start playback in the forward direct 2. Adjust the azimuth screw for maximum waveform on the and the similar output on L and R channels. 3. When adjusting the azimuth in the reverse direction, rep adjustment several times because of a little slip on the forv side.

CAUTION :

■ **Please remove the screw-locking bond left on the head base when replacing the azimuth screw.**

■ **After the adjustment, apply screwlock to the azimuth adjusting screw. (Screw-locking bond: RZZ0L01)**

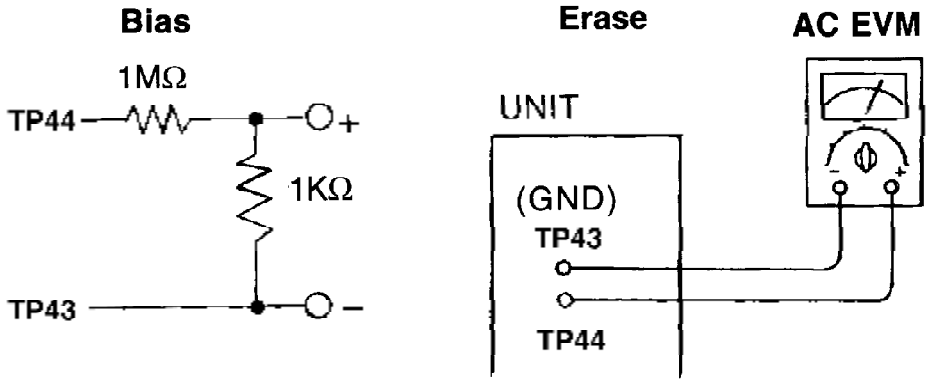
■ **TAPE SPEED ALIGNMENT**

Test Tape	Equipment Connection Electronic Counter	Adjustment	Specification	Remarks
ATT-111N	Headphone Jack (32 Ω) Fabricate the plug as shown in Fig.2 and then connect the lead wires of the plug to the measuring instrument.	-	3000 ± 60 Hz	Play mode

■ **BIAS AND ERASE VOLTAGE CHECK**

1. **Set the unit to TUNER mode.**
2. **Insert the Normal blank tape (QZZCRA) into DECK and set the unit to "REC" mode (use " ■ REC/STOP" key).**
3. **Measure and make sure that the output is within the standard value.**
4. **Insert the CrO2 tape (QZZCRX).**
5. **Repeat steps 2 and 3.**

Bias voltage for Deck (Standard value) : 15.0mV ± 2.0mV

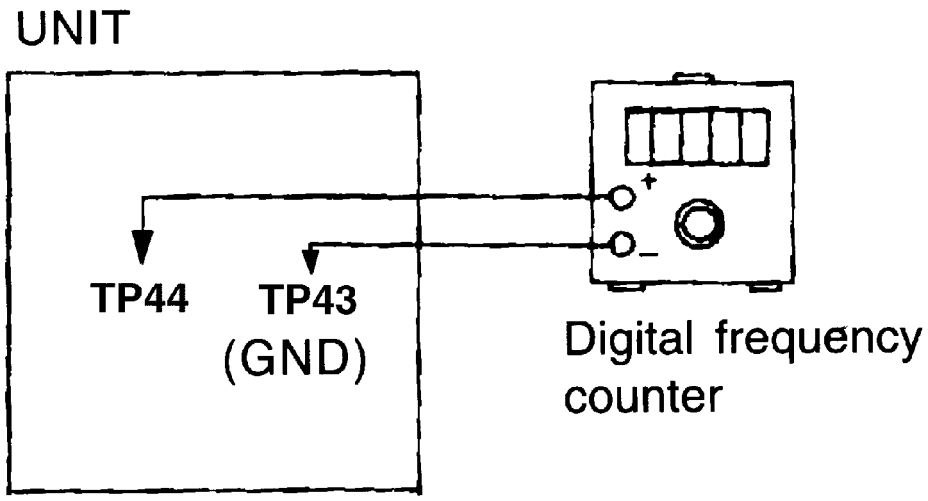


■ **BIAS FREQUENCY ADJUSTMENT (DECK)**

1. **Set the unit to TUNER mode.**
2. **Insert the Normal blank tape (QZZCRA) into DECK and set the unit to "REC" mode (use " ■ REC/STOP" key).**

3. **Adjust L1001 so that the output frequency is within the standard value.**

Standard Value : 56kHz ± 7 kHz



14.2. CD Section

Alignment is unneccessary for CD section of this unit.

14.2.1. Alignment Points

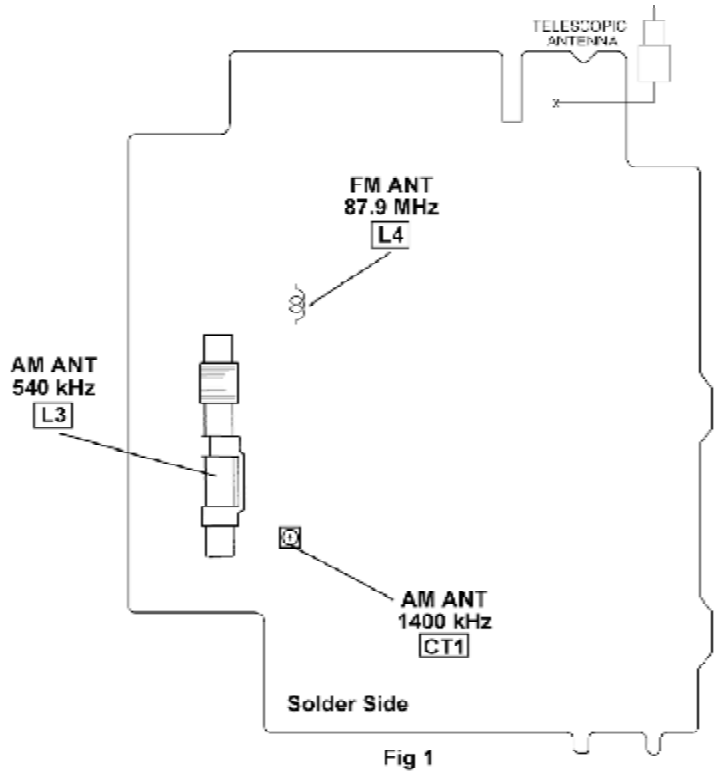


Fig 1

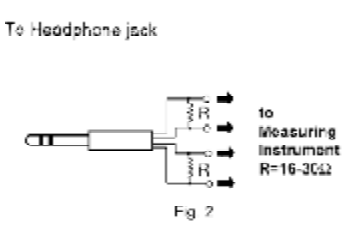


Fig 2

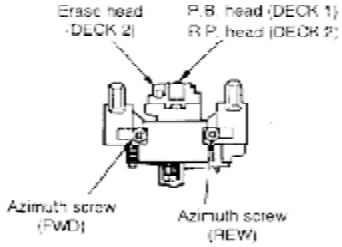


Fig 3

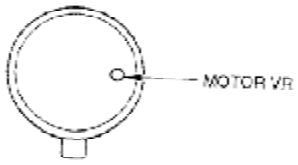


Fig. 4

15. Type Illustrations of ICs, Transistors & Diodes

16. Terminal Functions of ICs

- IC701 (BA6770FS) RF Head Amp

Pin No.	Mark	I/O	Function
1	RF-	I	RF summing amplifier return input pin
2	LON	O	LOOP ON voltage output pin
3	BD	I	B+D input pin
4	AC	I	A+C input pin
5	TB	I	Tracking error bias input pin
6	FE+	I	Focus bias input pin
7	VB	O	Bias amplifier output pin
8	GND	-	GND pin
9	E	I	E input pin
10	F	I	F input pin
11	LD	O	APC amplifier outpin pin.Capacitor connection pin for APC phase compensation
12	PD	I	APC amplifier input pin
13	TE-	I	Tracking error I-V amplifier return input pin
14	TE+	I	R connection pin for Tracking error I-V amplifier gain adjustment
15	FE-	I	Focus error amplifier return input pin
16	DPB	O	RF amplitude voltage output pin
17	R/H	-	Capacitor connection pin for lamp wave/loop off
18	SC	-	R connection pin for scratch depth adjustment
19	TE	O	Tracking error output pin
20	FON	I	Focus on control pin
21	FOK	O	Focus OK comparator pin
22	FE	O	Focus error output pin
23	DEFECT	O	Defect signal output pin
24	MIRR	O	Mirror signal output pin
25	VCC	-	Power supply pin
26	EFM	O	EFM signal output pin
27	ASY	I	Auto asymmetry control input pin
28	BLH	-	Capacitor connection pin for bottom long hold
29	PLH	-	Capacitor connection pin for peak long hold
30	CAGC	-	Capacitor connection pin for AGC time constant

			for AGC time constant

Pin No.	Mark	I/O	Function
31	RFI	I	RF output capacity connection re-input pin
32	RFO	O	RF summing amplifier output pin

- IC702 (BU18527KS) Microprocessor

Pin No.	Mark	I/O	Function
1	FDOUT	O	Focus drive out
2	JUMPO	O	Tracking jump out
3	TDOUT	O	Tracking drive out
4	SDIN	I	SDIN
5	SDOUT	O	SDOUT
6	CLVOUT	O	CLV Servo out
7	AVDD	-	Analog power source
8	LOUT	O	LCH audio out
9	VC	I	1-bit DAC bias
10	ROUT	O	RCH audio out
11	AGND	-	Analog ground
12	DGND	-	Digital ground
13	DPB_IN	-	No connection
14	CLV_IN	A-D	CLVIN
15	KEY_1	A-D	KEY 1 input
16	REG1	A-D	Region 1
17	P_DET	A-D	Power detect input
18	DVDD	-	Digital power source
19	TB_PWM	O	Tracking balance 8 bit power out
20	PLL_CLK	I/O	PLL CLOCK output
21	PLL_DI	I/O	PLL DATA output
22	PLL_DO	I/O	PLL IF count output
23	REMOCON_IN	I/O	Remote controller input
24	TONE	I/O	Tone control
25	VDD_CTL	I/O	VDD control
26	FB_PWM	I/O	Focus balance 8 bit power out
27	TEST0	-	No connection
28	TBR_ADJ	I	Track adjustment

Pin No.	Mark	I/O	Function
29	FBR_ADJ	I/O	Focus adjustment
30	OPN_SW	I/O	Open/close switch
31	REST SW	I/O	CD limit SW input for the most inner point
32	SEL_IN	I/O	Selector input
33	CD_SEL	I/O	CD mode select in
34	TAPE_SEL	I/O	Tape mode select in
35	TUNER_SEL	I/O	Tuner mode select in
36	GND	I	To ground
37	P_CNT	I/O	Power control
38	REC_H	I/O	Record high
39	M_MUTE	I/O	M_MUTE
40	REG2	I/O	Region 2
41	REG3	I/O	Region 3
42	TG_ADJ	I/O	TG adjustment
43	T_MUTE	I/O	Tuner mute
44	REG_CTL	I/O	Region control
45	MUTE_A	I/O	Muting signals A
46	HES	I/O	Harmonic enhancer sound
47	PLL_CE	I/O	PLL Chip enable output
48	NEW DIF	I/O	New diffect
49~63	SEG14~SEG0	I/O	LCD segment drive output
64~67	COM3~COM0	I/O	LCD common drive output
68	DIGIOUT	-	No connection
69	DGND	-	Digital ground
70	XIN75	I	75 kHz OSC IN
71	XOUT75	O	75 kHz OSC OUT
72	TEST1	-	No connection
73	RESETB	I	System reset input
74	DVDD	-	Digital power source
75	XIN16M	I	16 MHz OSC IN
76	XOUT16M	O	16 MHz OSC OUT
77	DGND	-	Digital ground
78	ASY	O	EFM digital output
79	EYE	I	EFM signal output
80	MIRR	I	Mirror signal output
81	DEFECT	I	Defect signal input
82	AVDD	-	Analog power source
83	FCO	O	PLL FCO output
84	PCO	O	PLL PCO output
85	VC	I	Servo reference
86	ADPFI	I	PLL OP amplifer -ve input
87	ADPFO	-	PLL OP amplifer output

Pin No.	Mark	I/O	Function
88	AGND	-	Analog ground
89	RVCO	I	Pin with VCO oscillation frequency setting resistance
90	FOK	I	Focus OK output
91	FEIN	I	Focus error
92	FCAP	O	Focus LPF capacitor connection
93	FON	O	Focus on
94	TEIN	I	Tracking error
95	ATS	I	Anti-shock input
96	TZC	I	Tracking zero cross input
97	TCAP	O	Tracking LPF capacitor connection
98	COMPC	O	Error measurement values for various adjustments, analog output
99	ADJ 1	O	Tracking balance
100	ADJ 2	I	Tracking gain balance

- IC703 (BA5948FP) 4CH Drive

Pin No.	Mark	I/O	Function
1	IN2	I	Motor driver (2) input
2	PC2	I	Turnable motor drive signal (“L”: ON)
3	IN1	I	Motor driver (1) input
4	PC1	I	Traverse motor drive signal (“L”: ON)
5	NC	-	Not used
6	NC	-	Not used
7	NC	I	Power supply (1) for driver
8	NC	-	Ground connection (1) for driver
9	PGND1	-	Ground connection (1) for driver
10	PVCC1	I	Power supply (1) for driver
11	D1-	O	Motor driver (1) reverse - action output
12	D1+	O	Motor driver (1) forward - action output
13	D2-	O	Motor driver (2) reverse - action output
14	D2+	O	Motor driver (2) forward - action output

Pin No.	Mark	I/O	Function
15	D3-	O	Motor driver (3) reverse - action output
16	D3+	O	Motor driver (3) forward - action output
17	D4-	O	Motor driver (4) reverse - action output
18	D4+	O	Motor driver (4) forward - action output
19	PVCC2	I	Power supply (2) for driver
20	PGND2	-	Ground connection (2) for driver
21	NC	-	Not used
22	NC	-	Not used
23	NC	-	Not used
24	NC	-	Not used
25	VCC	I	Power supply terminal
26	VREF	I	Reference voltage input
27	IN4	I	Motor driver (4) input
28	IN3	I	Motor driver (3) input

17. Parts Location and Replacement Parts List

Notes:

- Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of these components, be sure to use only manufacturers's specified parts shown in the parts list.

- The parenthesized indications in the Remarks column specify the areas or color. (Refer to the cover page for area or color.)
Parts without these indications can be used for all areas.

- Warning: This product uses a laser diode. Refer to caution statements on

- Capacitor values are in microfarad (μ F) unless specified otherwise, P=Pico-farads(pF); Farads.

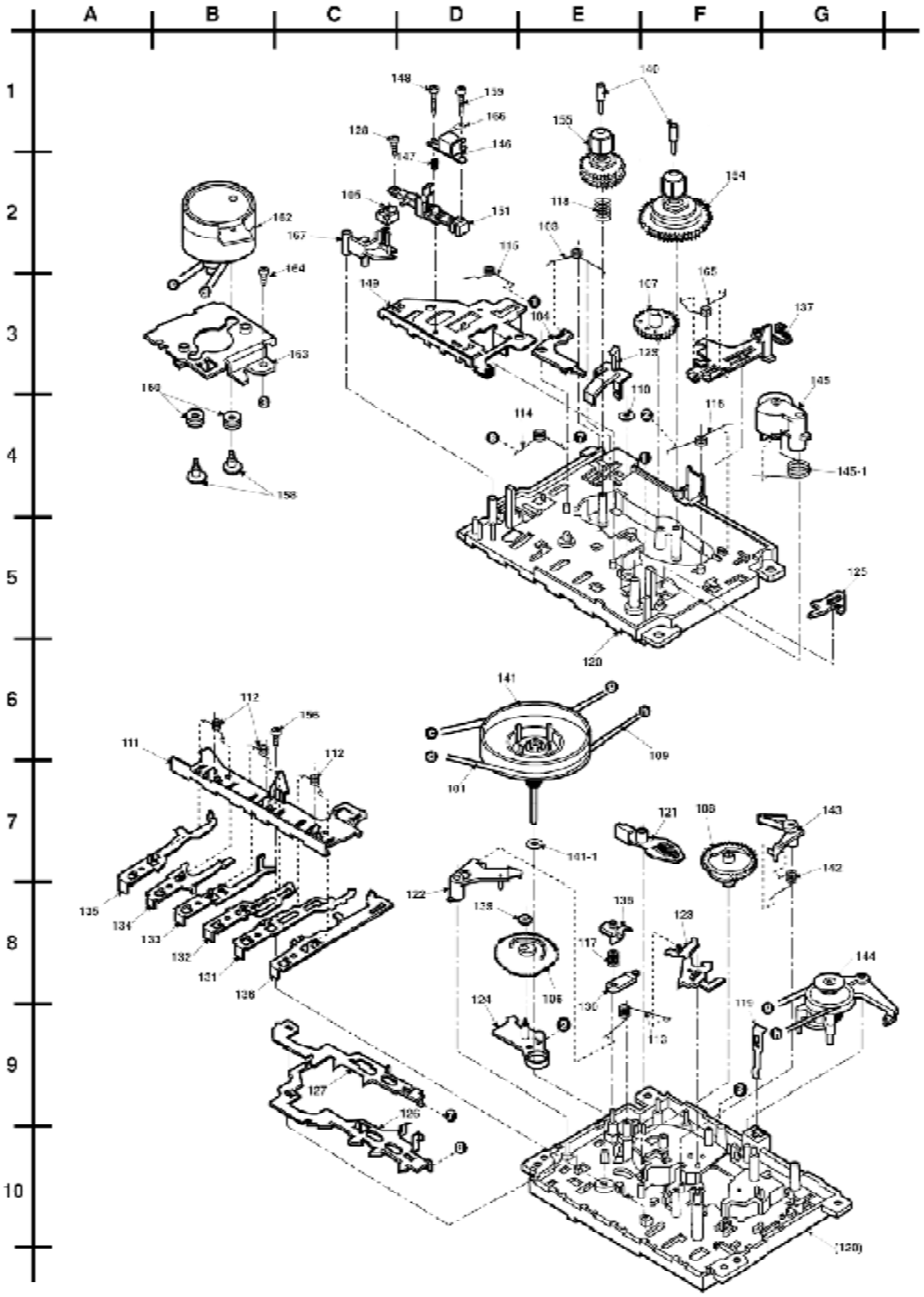
- Resistance values are in ohms, unless specified otherwise, 1K= 1,000(ohms).

- **The marking (RTL) indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependant on the type of assembly, and in accordance with the lows govening part and product retention. After the end of this period, the assembly will no longer be available.**
- **[M] indicates in the Remarks columns indicates parts that are supplied byMESA.**
- **The “(SF)” mark denotes the standard part.**
- **Remote Control Unit: Supply period for three years from terminal of production.**
- **Reference for O/I book languages are as follows :**

Ar : Arabic	**Cf : Canadian French**	**Cz : Czech**	**Da : Danish**
Du : Dutch	**En : English**	**Fr : French**	**Ge : German**
It : Italian	**Ko : Korean**	**Po : Polish**	**Ru : Russian**
Sp : Spanish	**Sw : Swedish**	**Co : Traditional Chinese**	**Cn : Simplified Ch**

17.1. Deck Mechanism (RAA0940)

17.1.1. Deck Mechanism Parts Location



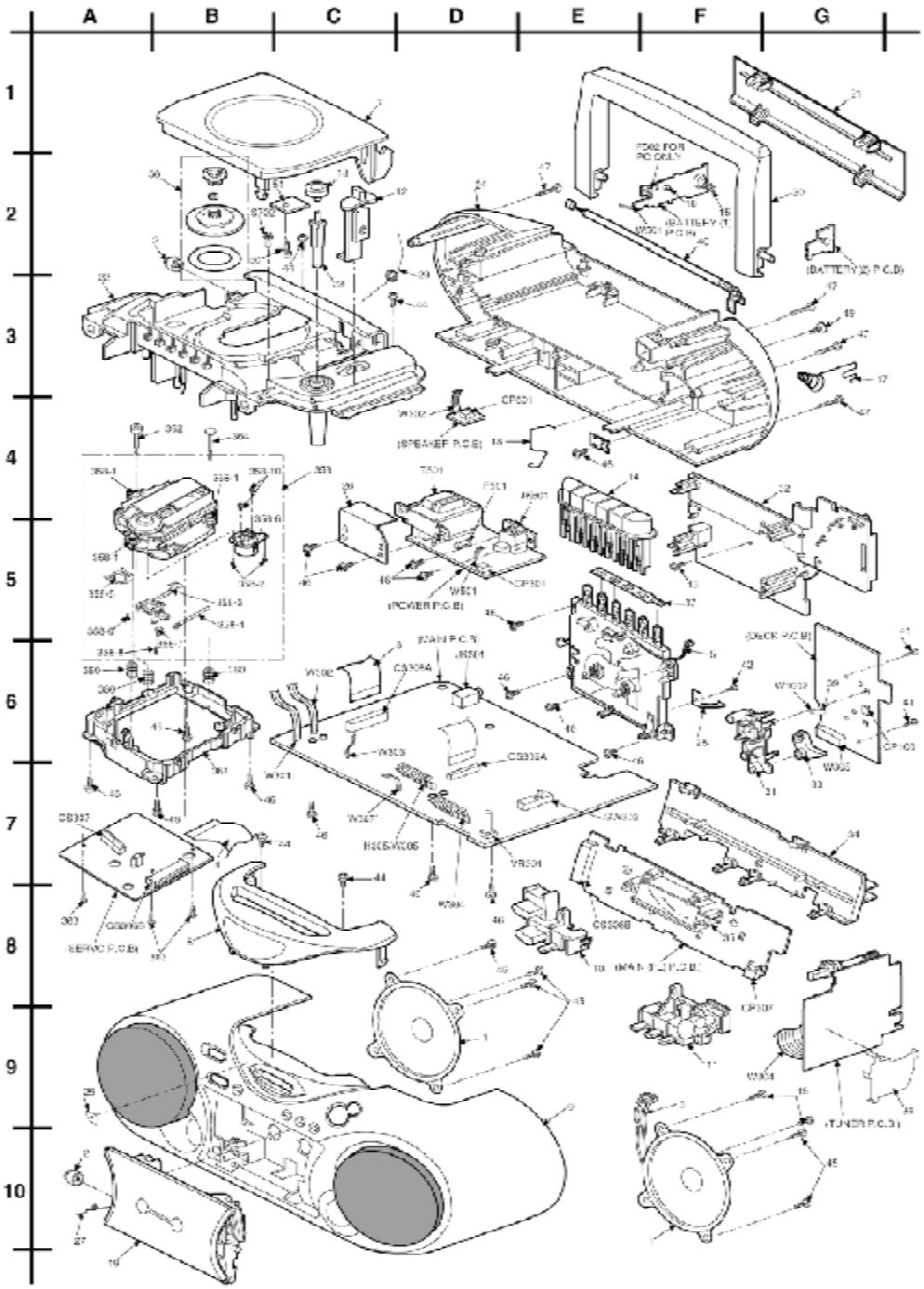
17.1.2. Deck Mechansim Part Lists

Ref. No.	Part No.	Part Name & Description	Remarks
		CASSETTE DECK	
101	RDV0021	MAIN BELT 'D'	[M]
103	RMB0109-1	BRAKE SPRING	[M]
104	RML0116	BRAKE	[M]
105	RBR2CY009	ERASE HEAD	[M]
106	RDG0057-1	IDLER GEAR	[M]
107	RDG0059	FF RELAY GEAR	[M]
108	RDK0005-1	CAM GEAR	[M]
109	RDV0006-1	RF BELT	[M]
110	RHW16009	CAPSTAN WASHER	[M]
111	RMA0109	BACK PLATE	[M]
112	RMB0043-1	ROD OPERATION SPRING	[M]
113	RMB0045-1	A.S. SPRING	[M]
114	RMB0046-1	LOCK PLATE SPRING	[M]
115	RMB0047	HEAD PANEL SPRING	[M]
116	RMB0048-1	IDLER LEVER SPRING	[M]
117	RMB0053	PAUSE LEVER SPRING	[M]
118	RMB0125	BACK TENSION SPRING	[M]
119	RMC0061	PACK SPRING	[M]
120	RFKRCT090P-K	CHASSIS ASS'Y	[M]
121	RML0071-1	SWING LEVER	[M]
122	RML0072-1	AS RELEASE LEVER	[M]
123	RML0073-1	AS PROTECT LEVER	[M]
124	RML0074	IDLER LEVER	[M]
125	RML0076	EJECT SELECTION LEVE	[M]
126	RML0077-1	LOCK PLATE	[M]
127	RML0078	FUNCTION PLATE	[M]
128	XTN2+4F	EARTH LUG SCREW	[M]
129	RML0081-2	RECORD SAFETY LEVER	[M]
130	RML0082	PAUSE LEVER	[M]
131	RMM0023-1	PLAY ROD	[M]
132	RMM0024	REW ROD	[M]
133	RMM0025	FF ROD	[M]
134	RMM0026	STOP ROD	[M]
135	RMM0027	PAUSE ROD	[M]
136	RMM0028	REC ROD	[M]
137	RMM0029-1	EJECT SLIDE LEVER	[M]
138	RMR0211-1	PAUSE BUSH	[M]
139	RMR0227	IDLER GEAR BUSH	[M]
140	RMS0055-1	REEL SHAFT	[M]
141	RXF0020	FLYWHEEL ASSY	[M]
141-1	RHW21008	FLYWHEEL WASHER	[M]
142	RMB0044	TRIGGER SPRING	[M]
143	RML0075	TRIGGER LEVER	[M]
144	RXP0014	RF CLUTCH ASSY	[M]
145	RXP0015	PINCH ROLLER ASSY	[M]
145-1	RMB0049	PINCH ARM SPRING	[M]
146	RBR4CM005-T	R/P HEAD	[M]
147	RMB0059	AZIMUT SPRING	[M]
148	RHD20049	AZIMUT SCREW	[M]
149	RMA1080	HEAD PANEL	[M]
151	RMR0149	HEAD BASE	[M]
154	RXR0004	TAKE UP REEL ASSY	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
155	RXR0005	SUPPLY REEL ASSY	[M]
156	XTN2+6J	BACK PLATE SCREW	[M]
158	RHD26002	MOTOR SCREW	[M]
159	XTN2+8F	R/P SCREW	[M]
160	RMG0102-1	MOTOR RUB. CUSHION	[M]
162	RFKPXD13PC-A	DC MOTOR ASS'Y	[M]
163	RMA0108	MOTOR BK	[M]
164	XTN26+8J	MOTOR BK SCREW	[M]
165	RME0098-2	E SLIDE LEVER SPRING	[M]
166	RJR0033	EARTH LUG	[M]
167	RML0080-1	ERASE HEAD ARM	[M]

17.2. Cabinet & CD Loading Mechanism

17.2.1. Cabinet & CD Loading Machanism Parts Location



17.2.2. Cabinet & CD Loading Machanism Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	RAS10P30-G	SPEAKER	[M]
2	RDG0288	DAMPER GEAR	[M]
3	REEX0109	PANEL TO MAIN FFC	[M]
4	REEX0110	CD FFC WIRE (25P)	[M]
5	REXX0141	TAPE HEAD WIRE	[M]
6	REXX0244	SPEAKER WIRE	[M]
7	RGKX0075-A	CD LID	[M]
7	RGKX0075-R	CD LID	[M]P-R
7	RGKX0075-H	CD LID	[M]P-S
8	RGKX0076-A	ORNAMENT	[M]
8	TGKX0076-R	ORNAMENT	[M]P-R
8	RGKX0076-H	ORNAMNET	[M]P-S
9	RFKGXD13PC-A	FRONT CABINET ASS'Y	[M]
9	RFKGXD13P-R	FRONT CABINET ASS'Y	[M]P-R
9	RFKGXD13P-S	FRONT CABINET ASS'Y	[M]P-S
10	RGUX0393-A	OPERATION BUTTON L	[M]
10	RGUX0393-R	OPERATION BUTTON L	[M]P-R
11	RGUX0394-A	OPERATION BUTTON R	[M]
11	RGUX0394-R	OPERATION BUTTON R	[M]P-R
12	RGVX0022-H	FUNCTION KNOB	[M]
13	RGWX0058-A	VOLUME KNOB	[M]
13	RGWX0058-H	VOLUME KNOB	[M]P-S
14	RGZX0036-A	MECHA BUTTON (1SET)	[M]
14	RGZX0036-R	MECHA BUTTON (SET)	[M]P-R
14	RGZX0036-H	MECHA BUTTON (SET)	[M]P-S
15	RJC511XB	BATT. TERMINAL	[M]
16	RJC70031ZC	BATT. TERMINAL	[M]
17	RJCX0005	BATT. TERMINAL	[M]
18	RJRX0009	ANTENNA TERMINAL	[M]
19	RKFX0088-S	CASSETTE LID	[M]
20	RKHX0014-A	HANDLE	[M]
20	RKHX0014-R	HANDLE	[M]P-R
20	RKHX0014-H	HANDLE	[M]P-S
21	RKK318ZC-1B	BATTERY COVER	[M]
21	RKK318ZC-H	BATTERY COVER	[M]P-S
22	RKQX0012-H	TOP CABINET	[M]
23	RKQX0013	VOLUME KNOB FIXTURE	[M]
24	RKSX0040J-A	BACK CABINET	[M]PC
24	RKSX0040-A	BACK CABINET	[M]P
24	RKSX0040-H	BACK CABINET	[M]P-S
25	RKWX0151-Q	REMOTE SENSOR PANEL	[M]
26	RMA1007	SHIELD PLATE	[M]
27	RMB0347-1	CASSETTE OPEN SPRING	[M]
28	RMC0312	R/P PLATE	[M]
29	RMEX0009	CD OPEN SPRING	[M]
30	RFKNXDT39GCK	CD HOLDER ASS'Y	[M]
31	RMK0338-1	PCB CHASSIS	[M]
32	RMKX0049	MECHA CHASSIS	[M]
33	RML0462	R/P LEVER	[M]
34	RMNX0042	PANEL PCB HOLDER	[M]
35	RMNX0043	LCD HOLDER	[M]
36	RMVX0044	TUNER SHIELD PLATE	[M]P

Ref. No.	Part No.	Part Name & Description	Remarks
37	RMXX0002-1	SPACER	[M]
39	RWJ8902060SS	MOTOR WIRE	[M]
40	XEARR210CA-C	ROD ANTENNA	[M]
41	XTN2+14G	SCREW	[M]
42	XTN2+3F	SCREW	[M]
44	XTN3+12GFZ	SCREW (TOP CAB)	[M]
45	XTV3+10G	SCREW (SPEAKER)	[M]
46	XTV3+12G	SCREW	[M]
47	XTV3+20G	REAR CAB SCREW	[M]
49	XYN3+F15FY	SCREW	[M]
50	XTN3+8C	SCREW	[M]
51	RGKX0093-A	CD LID LASER COVER	[M]
51	RGKX0093-R	CD LID LASER COVER	[M]P-R
51	RGKX0093-H	CD LID LASER COVER	[M]P-S
		TRAVERSE DECK	
358	RAE0152Z-1C	TRAVERSE	[M]
358-1	SHGD113-1	FLOATING CUSHION	[M]
358-10	XQS17+A35FZ	SCREW	[M]
358-2	SNSD38	TRV MOTOR ASS'Y SCRE	[M]
358-3	RAF0150A-1	OPTICAL PICKUP	[M]
358-4	RDG0247	DRIVE GEAR	[M]
358-5	RDG0248	INTERMEDIATE GEAR	[M]
358-6	RXQ0339	TRAVERSE MOTOR ASS'Y	[M]
358-7	RXQ0304-1	PLATE NUT ASS'Y	[M]
358-8	XQN17+CG5	NUT PLATE ASS'Y SCRE	[M]
358-9	XQS2+A3FZ	SCREW	[M]
359	RME0142	FLOATING SPRING A	[M]
360	RME0109	FLOATING SPRING B	[M]
361	RMR0698-K1	TRAVERSE CHASSIS	[M]
362	RMS0627	FIXED PIN B	[M]
363	XTN2+6G	SCREW	[M]
364	RMS0350	FIXED PIN A	[M]

17.3. Electrical Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		P.C.B.	
	REPW0010A1	BATTERY (1) P.C.B./BATTERY (2) P.C.B.	[M]RTL P
	REPW0010B1	BATTERY (1) P.C.B./BATTERY (2) P.C.B.	[M]RTL PC
	REPW0010A2	DECK P.C.B.	[M]RTL P
	REPW0010B2	DECK P.C.B.	[M]RTL PC
	REPW0010A3	CD SERVO P.C.B.	[M]RTL P
	REPW0010B3	CD SERVO P.C.B.	[M]RTL PC
	REPX0246A	MAIN P.C.B./TUNER P.C.B./SPEAKER P.C.B./POWER P.C.B./ PANEL (FL) P.C.B.	[M]RTL P
	REPX0246B	MAIN P.C.B./TUNER P.C.B./SPEAKER P.C.B./POWER P.C.B./ PANEL (FL) P.C.B.	[M]RTL PC
		INTEGRATED CIRCUITS	
IC1	TA2149N	IC TUNER	[M]
IC2	LC72121T	IC PLL	[M]
IC302	S81233SGUP	IC 3.3V REGULATOR	[M] ⚠
IC303	LA4627	IC POWER AMP	[M]
IC701	BA6770FS	IC RF HEAD AMP	[M]
IC702	BU18527KS	IC CD MICON	[M]
IC703	BA5948FP	IC 4 CH DRIVE	[M]
IC705	BU4066BCF	IC ANALOG SW	[M]
IC802	PST9127T	IC RESET	[M]
IC1001	BA3313L	IC PRE AMP	[M]
		TRANSISTORS	
Q1	KRC105MTA	TRANSISTOR	[M]
Q101	KTC3199GRTA	TRANSISTOR	[M]
Q103	KTC3199GRTA	TRANSISTOR	[M]
Q201	KTC3199GRTA	TRANSISTOR	[M]
Q203	KTC3199GRTA	TRANSISTOR	[M]
Q301	KTA1046	TRANSISTOR	[M]
Q302	KTC3199BLTA	TRANSISTOR	[M] ⚠
Q303	KTA12710YTA	TRANSISTOR	[M]
Q304	KTC3199BLTA	TRANSISTOR	[M]
Q305	KTA12710YTA	TRANSISTOR	[M]
Q306	KTC3199GRTA	TRANSISTOR	[M]
Q308	KRA102MTA	TRANSISTOR	[M]
Q701	2SA933STA	TRANSISTOR	[M]
Q702	KTC3199GRTA	TRANSISTOR	[M]
Q703	KTC3199GRTA	TRANSISTOR	[M]
Q704	KTC3199GRTA	TRANSISTOR	[M]
Q802	KTC3199GRTA	TRANSISTOR	[M]
Q1001	KTC3199BLTA	TRANSISTOR	[M]
		DIODES	
D1	SVC384T-AL	DIODE	[M]
D2	SVC237-AS	DIODE	[M]
D3	SVC237-AS	DIODE	[M]
D12	RB441QT-77	DIODE	[M]
D13	RB441QT-77	DIODE	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
D98	RVD1SS133TA	TRANSISTOR	[M]
D99	RVD1SS133TA	TRANSISTOR	[M]
D301	RVD1SS133TA	DIODE	[M]
D302	RVD1SS133TA	DIODE	[M]
D304	MTZJ7R5ATA	DIODE	[M] ⚠
D305	RVD1SS133TA	DIODE	[M]
D306	RVD1SS133TA	DIODE	[M]
D307	RVD1SS133TA	DIODE	[M]
D308	RVD1SS133TA	DIODE	[M]
D309	MTZJ6R2CTA	DIODE	[M] ⚠
D310	RB441QT-77	DIODE	[M]
D501	RL1N4003S-P	DIODE	[M] ⚠
D502	RL1N4003S-P	DIODE	[M] ⚠
D503	RL1N4003S-P	DIODE	[M] ⚠
D504	RL1N4003S-P	DIODE	[M] ⚠
D505	RVD1SS133TA	DIODE	[M]
D614	MTZJ3R3BTA	DIODE	[M]
D702	RVD1SS133TA	DIODE	[M]
D1001	RVD1SS133TA	DIODE	[M]
D1002	RB441QT-77	DIODE	[M]
		VARIABLE RESISTORS	
VR301	RRV12B05B14V	VR VOLUME	[M]
		SWITCHES	
S702	RSP1A026-Q	SW OPEN	[M]
S703	RSH1A053-U	SW REST	[M]
SW302	RSS3D006-G	SW FUNCTION	[M]
SW601	EVQ21405R	SW AUTO SCAN	[M]
SW602	EVQPAD05R	SW XBS/TONE/HES	[M]
SW603	EVQ21405R	SW PLAY MODE	[M]
SW604	EVQ21405R	SW MEMORY	[M]
SW605	EVQ21405R	SW REV SKIP	[M]
SW606	EVQ21405R	SW FWD SKIP	[M]
SW607	EVQPAD05R	SW PLAY/PAUSE	[M]
SW608	EVQPAD05R	SW CD STOP	[M]
SW1001	RSP2F003-B	SW RECORD	[M]
SW1002	RSH1A013-3I	SW LEAF	[M]
		CONNECTORS	
CP307	RJP3G9YA	CONNECTOR	[M]
CP601	RJP3G9YA	CONNECTOR	[M]
CP1001	RJP4G17ZA	4P CONNECTOR	[M]
CS306A	RJS2A5625	25P CONNECTOR	[M]
CS306B	RJS2A5725	25P CONNECTOR	[M]
CS307	RJS2A8616	16P FFC CONNECTOR	[M]
CS308A	RJS1A6823-J	23P FPC CONNECTOR	[M]
CS308B	RJS1A6723-J	CONNECTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
		TRIMMER	
CT1	RCVFMA10T01S	TRIMMER CAPACITOR	[M]
		COILS & TRANSFORMERS	
L2	RLQY30S1W-F	FM COIL	[M]
L3	RLV2C050-0	FERRITE ANTENNA	[M]
L4	RLD4Y45W	FM COIL	[M]
L6	RL02B136	AM OSC COIL	[M]
L7	RLQA101KT-G	AXIAL COIL	[M]
L8	RLQY30S1W-F	FM COIL	[M]
L10	RLQZPR22KT-Y	COIL	[M]
L127	RLQA101KT-G	COIL	[M]
L221	RLQZP100KT-Y	COIL	[M]
L222	RLQZP100KT-Y	COIL	[M]
L227	RLQA101KT-G	COIL	[M]
L811	RLQB3R3KT-1Y	COIL	[M]
L812	RLQB3R3KT-1Y	COIL	[M]
L1001	RL09B17	BIAS OSC COIL	[M]
T1	RLI2B019-T	AM IFT	[M]
T501	RTP1K1C011-X	TRANSFORMER	[M] ⚠
		COMPONENT COMBINATION	
Z701	RSL5278-G	LCD	[M]
Z702	RCD1837SS3V	REMOTE SENSOR	[M]
		CERAMIC FILTERS	
CF1	RLFFETNL04AT	FM CF	[M]
CF3	RLFDFT26AT	FM DISCRIMINATOR	[M]
CF4	RLFCFA450L4B	AM FILTER	[M]
		OSCILLATORS	
X3	RSXD7M20C01	CRYSTAL OSCILLATOR	[M]
X801	RSXD75K0E02	CRYSTAL OSCILLATOR	[M]
X802	RSXZ16M9Z01T	CERAMIC OSCILLATOR	[M]
		FUSES	
F501	XBA1C12NB5H	FUSE	[M] ⚠
F502	XBA1C12NB5H	FUSE	[M]PC ⚠
		FUSE HOLDERS	
FH501	RJF0028	FUSECLIP	[M]
FH502	RJF0028	FUSECLIP	[M]
FH503	RJF0028	FUSECLIP	[M]PC
FH504	RJF0028	FUSECLIP	[M]PC
		FUSE PROTECTOR	

Ref. No.	Part No.	Part Name & Description	Remarks
FP501	RSFMB20KT-L	PROTECTOR	[M]P ⚠
		HOLDERS	
H301	RJS1A5503	CABLE HOLDER	[M]
H305	RJS1A5510	WIRE HOLDER	[M]
H307	RJS1A5503	CABLE HOLDER	[M]
		JACKS	
JK301	RJJ37TK09	JK PHONE	[M]
JK501	RJJ1SM02-X	JK AC INLET (SW501)	[M] ⚠
		WIRES	
W301	REXX0218	TRANSFORMER TO MAIN	[M]
W301	RWJ8903190SS	WIRE	[M]
W302	RWJ8903135SS	REMOTE SENSOR TO MAI	[M]
W303	RWJ8902135SS	CD LEAF WIRE	[M]
W304	RWJ0110160SS	TUNER TO MAIN WIRE	[M]
W305	RWJ0110165QQ	DECK TO MAIN WIRE	[M]
W307	REXX0218	TRANSFORMER TO MAIN	[M]
		RESISTORS	
R2	ERDS2TJ103T	10K 1/4W	[M]
R3	ERDS2TJ332T	3.3K 1/4W	[M]
R4	ERDS2TJ331T	330 1/4W	[M]
R5	ERDS2TJ104T	100K 1/4W	[M]
R6	ERDS2TJ104T	100K 1/4W	[M]
R8	ERDS2TJ104T	100K 1/4W	[M]
R9	ERDS2TJ104T	100K 1/4W	[M]
R11	ERDS2TJ223T	22K 1/4W	[M]
R12	ERDS2TJ103T	10K 1/4W	[M]
R16	ERDS2TJ104T	100K 1/4W	[M]
R17	ERDS2TJ222T	2.2K 1/4W	[M]
R18	ERDS2TJ472T	4.7K 1/4W	[M]
R20	ERDS2TJ223T	22K 1/4W	[M]
R21	ERDS2TJ101T	100 1/4W	[M]
R22	ERDS2TJ102T	1K 1/4W	[M]
R23	ERDS2TJ223T	22K 1/4W	[M]
R24	ERDS2TJ103T	10K 1/4W	[M]
R25	ERDS2TJ223T	22K 1/4W	[M]
R26	ERDS2TJ103T	10K 1/4W	[M]
R27	ERDS2TJ332T	3.3K 1/4W	[M]
R28	ERDS2TJ223T	22K 1/4W	[M]
R29	ERDS2TJ103T	10K 1/4W	[M]
R30	ERDS2TJ472T	4.7K 1/4W	[M]
R31	ERDS2TJ222T	2.2K 1/4W	[M]
R32	ERDS2TJ561T	560 1/4W	[M]
R33	ERDS2TJ121T	120 1/4W	[M]
R34	ERDS2TJ104T	100K 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R35	ERDS2TJ221T	220 1/4W	[M]
R91	ERDS2TJ680T	68 1/4W	[M]
R108	ERDS2TJ562T	5.6K 1/4W	[M]
R110	ERDS2TJ272T	2.7K 1/4W	[M]
R111	ERDS2TJ822T	8.2K 1/4W	[M]
R113	ERDS2TJ183T	18K 1/4W	[M]
R115	ERDS2TJ472T	4.7K 1/4W	[M]
R116	ERDS2TJ102T	1K 1/4W	[M]
R117	ERDS2TJ471T	470 1/4W	[M]
R118	ERDS2TJ823T	82K 1/4W	[M]
R120	ERDS2TJ153T	15K 1/4W	[M]
R121	ERDS2TJ471T	470 1/4W	[M]
R122	ERDS2TJ274T	270K 1/4W	[M]
R123	ERDS2TJ472T	4.7K 1/4W	[M]
R126	ERDS2TJ562T	5.6K 1/4W	[M]
R127	ERDS2TJ181T	180 1/4W	[M]
R208	ERDS2TJ562T	5.6K 1/4W	[M]
R210	ERDS2TJ272T	2.7K 1/4W	[M]
R211	ERDS2TJ822T	8.2K 1/4W	[M]
R213	ERDS2TJ183T	18K 1/4W	[M]
R215	ERDS2TJ472T	4.7K 1/4W	[M]
R216	ERDS2TJ102T	1K 1/4W	[M]
R217	ERDS2TJ471T	470 1/4W	[M]
R218	ERDS2TJ823T	82K 1/4W	[M]
R220	ERDS2TJ153T	15K 1/4W	[M]
R221	ERDS2TJ471T	470 1/4W	[M]
R222	ERDS2TJ274T	270K 1/4W	[M]
R223	ERDS2TJ472T	4.7K 1/4W	[M]
R227	ERDS2TJ181T	180 1/4W	[M]
R301	ERD2FCVG220T	22 1/4W	[M]
R310	ERDS2TJ333T	33K 1/4W	[M]
R311	ERDS2TJ392T	3.9K 1/4W	[M]
R312	ERDS2TJ222T	2.2K 1/4W	[M]
R313	ERDS2TJ473T	47K 1/4W	[M]
R314	ERDS2TJ331T	330 1/4W	[M]
R315	ERDS2TJ122T	1.2K 1/4W	[M]
R316	ERDS2TJ331T	330 1/4W	[M]
R317	ERDS2TJ151T	150 1/4W	[M]
R319	ERDS2TJ151T	150 1/4W	[M]
R320	ERDS2TJ472T	4.7K 1/4W	[M]
R321	ERDS2TJ103T	10K 1/4W	[M]
R322	ERDS2TJ101T	100 1/4W	[M]
R323	ERDS2TJ152T	1.5K 1/4W	[M]
R324	ERDS2TJ333T	33K 1/4W	[M]
R325	ERDS2TJ103T	10K 1/4W	[M]
R326	ERDS2TJ223T	22K 1/4W	[M]
R327	ERDS2TJ223T	22K 1/4W	[M]
R328	ERDS2TJ103T	10K 1/4W	[M]
R329	ERDS2TJ152T	1.5K 1/4W	[M]
R335	ERDS2TJ103T	10K 1/4W	[M]
R336	ERDS2TJ122T	1.2K 1/4W	[M]
R357	ERDS2TJ224T	220K 1/4W	[M]
R602	ERDS2TJ102T	1K 1/4W	[M]
R603	ERDS2TJ102T	1K 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R604	ERDS2TJ152T	1.5K 1/4W	[M]
R605	ERDS2TJ222T	2.2K 1/4W	[M]
R606	ERDS2TJ332T	3.3K 1/4W	[M]
R607	ERDS2TJ472T	4.7K 1/4W	[M]
R608	ERDS2TJ822T	8.2K 1/4W	[M]
R701	ERDS2TJ100T	10 1/4W	[M]
R702	ERDS2TJ103T	10K 1/4W	[M]
R703	ERDS2TJ472T	4.7K 1/4W	[M]
R706	ERDS2TJ103T	10K 1/4W	[M]
R707	ERDS2TJ103T	10K 1/4W	[M]
R708	ERDS2TJ332T	3.3K 1/4W	[M]
R709	ERDS2TJ104T	100K 1/4W	[M]
R710	ERDS2TJ223T	22K 1/4W	[M]
R712	ERDS2TJ273T	27K 1/4W	[M]
R713	ERDS2TJ224T	220K 1/4W	[M]
R714	ERDS2TJ393T	39K 1/4W	[M]
R715	ERDS2TJ102T	1K 1/4W	[M]
R716	ERDS2TJ273T	27K 1/4W	[M]
R720	ERDS2TJ104T	100K 1/4W	[M]
R731	ERDS2TJ104T	100K 1/4W	[M]
R733	ERDS2TJ103T	10K 1/4W	[M]
R735	ERDS2TJ103T	10K 1/4W	[M]
R736	ERDS2TJ153T	15K 1/4W	[M]
R737	ERDS2TJ102T	1K 1/4W	[M]
R738	ERDS2TJ303T	30K 1/4W	[M]
R740	ERDS2TJ103T	10K 1/4W	[M]
R742	ERDS2TJ155T	1.5M 1/4W	[M]
R743	ERDS2TJ124T	120K 1/4W	[M]
R745	ERDS2TJ472T	4.7K 1/4W	[M]
R746	ERDS2TJ472T	4.7K 1/4W	[M]
R747	ERDS2TJ472T	4.7K 1/4W	[M]
R748	ERDS2TJ272T	2.7K 1/4W	[M]
R749	ERDS2TJ153T	15K 1/4W	[M]
R750	ERDS2TJ104T	100K 1/4W	[M]
R751	ERDS2TJ472T	4.7K 1/4W	[M]
R752	ERDS2TJ513T	51K 1/4W	[M]
R753	ERDS2TJ153T	15K 1/4W	[M]
R754	ERDS2TJ272T	2.7K 1/4W	[M]
R755	ERDS2TJ224T	220K 1/4W	[M]
R756	ERDS2TJ103T	10K 1/4W	[M]
R757	ERDS2TJ511T	510 1/4W	[M]
R761	ERDS2TJ823T	82K 1/4W	[M]
R762	ERDS2TJ102T	1K 1/4W	[M]
R763	ERDS2TJ155T	1.5M 1/4W	[M]
R764	ERDS2TJ104T	100K 1/4W	[M]
R765	ERDS2TJ105T	1M 1/4W	[M]
R766	ERDS2TJ333T	33K 1/4W	[M]
R767	ERDS2TJ123T	12K 1/4W	[M]
R768	ERDS2TJ102T	1K 1/4W	[M]
R769	ERDS2TJ101T	100 1/4W	[M]
R770	ERDS2TJ103T	10K 1/4W	[M]
R773	ERDS2TJ822T	8.2K 1/4W	[M]
R774	ERDS2TJ513T	51K 1/4W	[M]
R775	ERDS2TJ153T	15K 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R777	ERDS2TJ104T	100K 1/4W	[M]
R778	ERDS2TJ472T	4.7K 1/4W	[M]
R783	ERDS2TJ102T	1K 1/4W	[M]
R784	ERDS2TJ102T	1K 1/4W	[M]
R785	ERDS2TJ103T	10K 1/4W	[M]
R786	ERDS2TJ334T	330K 1/4W	[M]
R787	ERDS2TJ334T	330K 1/4W	[M]
R788	ERDS2TJ103T	10K 1/4W	[M]
R789	ERDS2TJ103T	10K 1/4W	[M]
R790	ERDS2TJ103T	10K 1/4W	[M]
R791	ERDS2TJ103T	10K 1/4W	[M]
R801	ERDS2TJ473T	47K 1/4W	[M]
R802	ERDS2TJ473T	47K 1/4W	[M]
R803	ERDS2TJ473T	47K 1/4W	[M]
R804	ERDS2TJ103T	10K 1/4W	[M]
R830	ERDS2TJ101T	100 1/4W	[M]
R837	ERDS2TJ333T	33K 1/4W	[M]
R841	ERDS2TJ102T	1K 1/4W	[M]
R842	ERDS2TJ102T	1K 1/4W	[M]
R845	ERDS2TJ102T	1K 1/4W	[M]
R1001	ERDS2TJ221T	220 1/4W	[M]
R1002	ERDS2TJ331T	330 1/4W	[M]
R1003	ERDS2TJ473T	47K 1/4W	[M]
R1004	ERDS2TJ8R2T	8.2 1/4W	[M]
R1005	ERDS2TJ223T	22K 1/4W	[M]
R1006	ERDS2TJ101T	100 1/4W	[M]
R1101	ERDS2TJ183T	18K 1/4W	[M]
R1102	ERDS2TJ272T	2.7K 1/4W	[M]
R1103	ERDS2TJ224T	220K 1/4W	[M]
R1104	ERDS2TJ562T	5.6K 1/4W	[M]
R1105	ERDS2TJ222T	2.2K 1/4W	[M]
R1106	ERDS2TJ680T	68 1/4W	[M]
R1201	ERDS2TJ183T	18K 1/4W	[M]
R1202	ERDS2TJ272T	2.7K 1/4W	[M]
R1203	ERDS2TJ224T	220K 1/4W	[M]
R1204	ERDS2TJ682T	6.8K 1/4W	[M]
R1205	ERDS2TJ222T	2.2K 1/4W	[M]
R1206	ERDS2TJ680T	68 1/4W	[M]
		CAPACITORS	
C1	ECBT1H470J5	47P 50V	[M]
C2	ECBT1H100JC5	10P 50V	[M]
C3	ECFR1C223MR	0.022 16V	[M]
C4	ECBT1H102KB5	1000P 50V	[M]
C5	ECBT1H2R2KC5	2.2P 50V	[M]
C6	ECBT1H102KB5	1000P 50V	[M]
C7	ECBT1H150JC5	15P 50V	[M]
C8	ECBT1H102KB5	1000P 50V	[M]
C9	ECBT1H102KB5	1000P 50V	[M]
C10	ECBT1H3R3KC5	3.3P 50V	[M]
C11	ECBT1H102KB5	1000P 50V	[M]
C12	ECBT1H331KB5	330P 50V	[M]
C13	ECA1HM100B	10 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C14	ECBT1H102KB5	1000P 50V	[M]
C15	ECFR1C683KR	0.068 16V	[M]
C16	ECFR1C823MR	0.082 16V	[M]
C17	ECFR1C823MR	0.082 16V	[M]
C18	ECFR1C333KR	0.033 16V	[M]
C19	ECFR1C333KR	0.033 16V	[M]
C20	RCE1HM010BP	1P 50V	[M]
C21	RCE1HM010BP	1P 50V	[M]
C22	ECA1HMR47B	0.47 50V	[M]
C23	ECFR1C333KR	0.033 16V	[M]
C24	ECFR1C333KR	0.033 16V	[M]
C25	ECQP2A621JZT	620P 100V	[M]
C26	ECA1HM4R7B	4.7 25V	[M]
C30	ECBT1H331KB5	330P 50V	[M]
C31	ECBT1C103MS5	0.01 16V	[M]
C32	ECBT1H102KB5	1000P 50V	[M]
C33	ECBT1H102KB5	1000P 50V	[M]
C34	ECBT1H102KB5	1000P 50V	[M]
C35	ECA1CM101B	100 16V	[M]
C36	ECA1CM101B	100 16V	[M]
C37	ECBT1C103MS5	0.01 16V	[M]
C38	ECBT1H101KB5	100P 50V	[M]
C39	ECBT1H120JC5	12P 50V	[M]
C40	ECBT1C222KR5	2200P 16V	[M]
C41	ECBT1H101KB5	100P 50V	[M]
C42	ECBT1H180JC5	18P 50V	[M]
C43	ECBT1H101KB5	100P 50V	[M]
C44	RCE1HM2R2BP	2.2P 50V	[M]
C45	ECBT1H102KB5	1000P 50V	[M]
C47	ECFR1C223MR	0.022 16V	[M]
C48	RCE1HM010BP	1P 50V	[M]
C49	ECBT1H102KB5	1000P 50V	[M]
C50	ECBT1H102KB5	1000P 50V	[M]
C51	RCE1HM010BP	1P 50V	[M]
C54	ECBT1H102KB5	1000P 50V	[M]
C55	RCE1HM010BP	10 50V	[M]
C56	ECBT1H102KB5	1000P 50V	[M]
C57	ECBT1H223KB5	0.022 50V	[M]
C58	ECBT1H102KB5	1000P 50V	[M]
C61	ECBT1H221KB5	220 50V	[M]
C109	ECEA1HU0R1B	0.1 50V	[M]
C110	RCE1HMR22BP	22 50V	[M]
C112	RCE1HM2R2BP	2.2P 50V	[M]
C113	ECBT1H560J5	56P 50V	[M]
C114	ECBT1H102KB5	1000P 50V	[M]
C115	RCE1HM010BP	1P 50V	[M]
C116	ECBT1H102KB5	1000P 50V	[M]
C118	ECBT1H332KR5	3300P 50V	[M]
C120	ECA1AM471B	470 10V	[M] ⚠
C124	ECBT1H332KR5	3300P 50V	[M]
C130	ECBT1H153KB5	0.015 50V	[M]
C209	ECEA1HU0R1B	0.1 50V	[M]
C210	RCE1HMR22BP	22 50V	[M]
C212	RCE1HM2R2BP	2.2P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C213	ECBT1H560J5	56P 50V	[M]
C214	ECBT1H102KB5	1000P 50V	[M]
C215	RCE1HM010BP	1P 50V	[M]
C216	ECBT1H102KB5	1000P 50V	[M]
C217	ECA1AM101B	100P 10V	[M]
C218	ECBT1H332KR5	3300P 50V	[M]
C220	ECA1AM471B	470 10V	[M] ⚠
C222	ECBT1H332KR5	3300P 50V	[M]
C230	ECBT1H153KB5	0.15 50V	[M]
C301	ECA1EM470B	47 25V	[M]
C313	ECBT1H561KB5	560P 50V	[M]
C314	RCE1AM470BP	47P 10V	[M]
C315	ECBT1H102KB5	1000P 50V	[M]
C316	ECA1AM101B	100P 10V	[M]
C317	ECA1CM222EV	2200 16V	[M] ⚠
C318	RCE1CM220BP	20 16V	[M]
C319	ECBT1H102KB5	1000P 50V	[M]
C320	RCE1CM220BP	20 16V	[M]
C323	RCE1CM220BP	20 16V	[M]
C324	ECBT1H102KB5	1000P 50V	[M]
C325	ECEA1AKA101B	100 10V	[M]
C327	ECBT1H102KB5	1000P 50V	[M]
C330	ECFR1C104KR	0.1 16V	[M]
C331	ECA1HM4R7B	4.7 50V	[M]
C333	ECBT1E103ZF5	0.01 25V	[M]
C335	ECQP2A102JZT	1000P 100V	[M]
C501	ECKR1H103ZF5	0.01 50V	[M]
C502	ECKR1H103ZF5	0.01 50V	[M]
C503	ECKR1H103ZF5	0.01 50V	[M]
C504	ECKR1H103ZF5	0.01 50V	[M]
C701	ECBT1H104KB5	0.1 50V	[M]
C702	ECEA1AKA101B	100 10V	[M]
C703	ECEA1HKA010B	1 50V	[M]
C704	ECBT1H103KB5	0.01 50V	[M]
C705	ECEA1CKA470B	47 16V	[M]
C706	ECBT1H220J5	22P 50V	[M]
C707	ECBT1C332MR5	3300P 16V	[M]
C708	ECBT1H104ZF5	0.1 50V	[M]
C709	ECBT1H471KB5	470P 50V	[M]
C710	ECBT1H104KB5	0.1 50V	[M]
C711	ECBT1H104ZF5	0.1 50V	[M]
C714	ECA1HM0R1B	0.1 50V	[M]
C715	ECA1HM100B	10 50V	[M]
C716	RCE1CM220BP	20 16V	[M]
C717	RCE1HM2R2BP	2.2P 50V	[M]
C718	ECA1HM100B	10 50V	[M]
C719	RCE1HM010BP	1P 50V	[M]
C720	ECA1HM3R3B	3.3 50V	[M]
C721	RCE1HM2R2BP	2.2P 50V	[M]
C722	RCE1CM220BP	20 16V	[M]
C723	ECA1HMR47B	47 50V	[M]
C724	RCE1CM220BP	20 16V	[M]
C725	RCE1HM2R2BP	2.2P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C726	ECEA1AKA221I	220 10V	[M]
C728	ECEA1HKA2R2I	2.2 50V	[M]
C729	ECBT1H105ZF5	1 50V	[M]
C730	ECEA1CKA470B	47 16V	[M]
C731	ECBT1H3R3KC5	3.3P 50V	[M]
C733	ECBT1H104ZF5	0.1 50V	[M]
C742	ECFR1C104KR	0.1 16V	[M]
C743	ECQV1H474JZ3	0.47 50V	[M]
C744	ECBT1E473ZF5	0.047 25V	[M]
C745	ECBT1H103KB5	0.01 50V	[M]
C746	ECBT1H103KB5	0.01 50V	[M]
C747	ECBT1H103KB5	0.01 50V	[M]
C748	ECQV1H224JZ3	0.22 50V	[M]
C749	ECBT1H103KB5	0.01 50V	[M]
C750	ECBT1H102KB5	1000P 50V	[M]
C751	ECFR1C104KR	0.1 16V	[M]
C752	ECBT1H333KB5	0.033 50V	[M]
C753	ECQV1H224JZ3	0.22 50V	[M]
C754	ECBT1H471KB5	470P 50V	[M]
C755	ECBT1H102KB5	1000P 50V	[M]
C756	RCE1HMR22BP	0.22P 50V	[M]
C757	ECBT1H104ZF5	0.1 50V	[M]
C758	ECBT1H270J5	27P 50V	[M]
C759	ECBT1H220J5	22P 50V	[M]
C760	ECBT1H220J5	22P 50V	[M]
C761	ECBT1H220J5	22P 50V	[M]
C762	ECBT1H220J5	22P 50V	[M]
C767	ECBT1H153KB5	0.015 50V	[M]
C768	ECBT1C682KR5	6800P 16V	[M]
C769	ECQV1H474JZ3	0.47 50V	[M]
C774	ECFR1C104KR	0.1 16V	[M]
C775	RCE1AM470BP	47 10V	[M]
C777	ECBT1H104KB5	0.1 50V	[M]
C778	ECBT1H104KB5	0.1 50V	[M]
C781	ECBT1H103KB5	0.001 50V	[M]
C783	ECQP2A102JZT	1000P 100V	[M]
C784	ECBT1H103KB5	0.001 50V	[M]
C802	ECBT1H102KB5	1000P 50V	[M]
C804	ECFR1C104KR	0.1 16V	[M]
C807	ECBT1H102KB5	1000P 50V	[M]
C808	ECBT1H102KB5	1000P 50V	[M]
C810	ECBT1H102KB5	1000P 50V	[M]
C811	ECBT1H102KB5	1000P 50V	[M]
C1001	RCQB2A392KM	3900P 100V	[M]
C1002	RCE1AM101BP	100P 10V	[M]
C1003	ECBT1C682KR5	6800P 16V	[M]
C1004	ECBT1H102KB5	1000P 50V	[M]
C1006	ECEA1HKA2R2B	2.2 50V	[M]
C1007	RCE1AM101BP	100P 10V	[M]
C1008	ECEA1AKA221B	220 10V	[M]
C1101	ECBT1C272MR5	2700P 16V	[M]
C1102	ECA1CM100B	10P 16V	[M]
C1103	ECBT1H223KB5	0.022 50V	[M]
C1104	RCE1AM101BP	100P 10V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C1106	ECBT1H681KB5	680P 50V	[M]
C1122	ECBT1C332MR5	3300P 16V	[M]
C1201	ECBT1C272MR5	2700P 16V	[M]
C1202	ECA1CM100B	10P 16V	[M]
C1203	ECBT1H223KB5	0.022 50V	[M]
C1204	RCE1AM101BP	100P 10V	[M]
C1206	ECBT1H681KB5	680P 50V	[M]
C1222	ECBT1C332MR5	3300P 16V	[M]

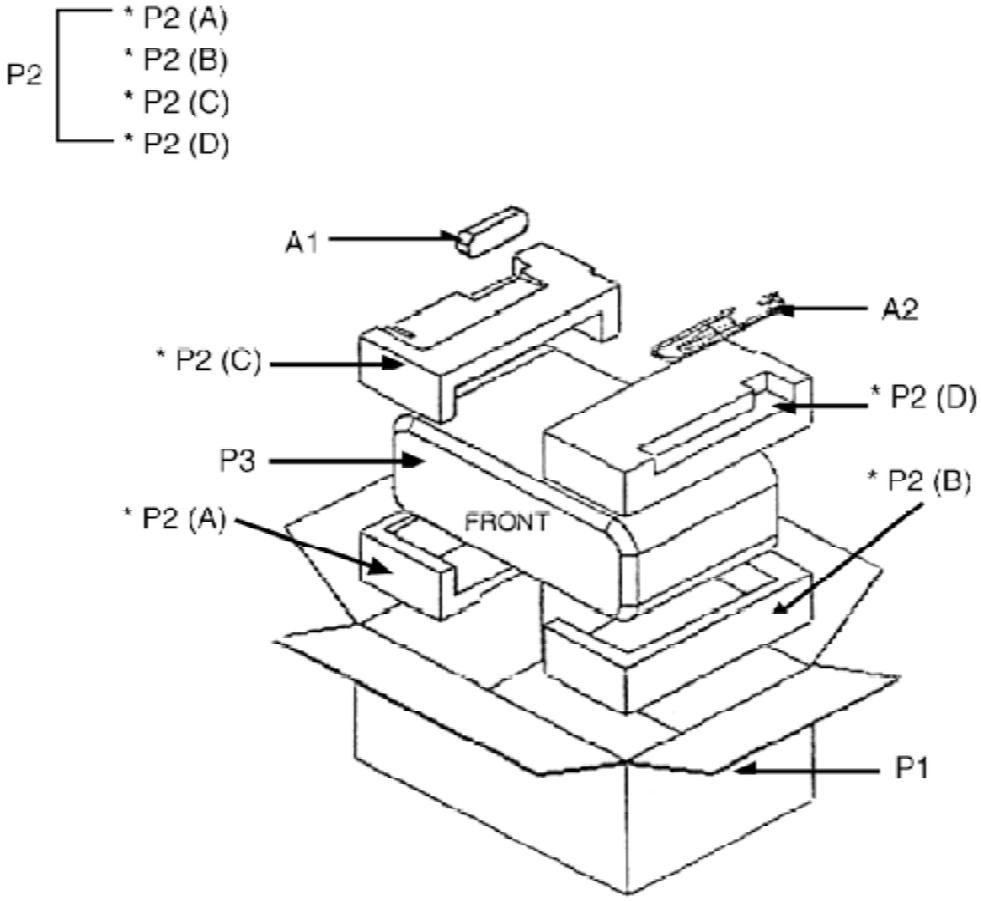
17.4. Packing Materials & Accessories Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RPGX0712	PACKING CASE	[M]PC
P1	RPGX0717	PACKING CASE	[M]P
P1	RPGX0782	PACKING CASE	[M]P-R
P1	RPGX0781	PACKING CASE	[M]P-S
P2	RPNX0124	POLYFOAM	[M]
P3	RPH0131	MIRAMAT SHEET	[M]
		ACCESSORIES	
A1	EUR648257	REMOTE CONTROLLER	[M]
A1-1	UR64EC2337A	R/CA BATTERY COVER	[M]
A2	RJA0065-1D	AC CORD	[M]
A3	RQT5685-1P	O/I BOOK (En)	[M]
A3	RQT5686-1C	O/I BOOK	[M]PC

17.5. Packaging

ACCESSORIES CASE

A2 : O/I BOOK



/ Printed in Singapore / M010200001FLE/H/C/D/J

Order No. MD0104075S1
J1

Service Manual

Portable Stereo CD System

RX-D13
Color
(A) ... Blue Type
(R) ... Red Type
(S) ... Silver Type
P ... U.S.A.
Tape Deck: SG20 Mechanism Series
Traverse Deck: RAE0152Z-1C Mechanism Series

Change the Version (A6) to (J1) (Correction)
Please delete the RX-D13(P) (A6) version (Order No. MD0102028C1) and use this supplement manual (J1) version.

SPECIFICATIONS

■ RADIO

Frequency Range	
FM	**87.9-107.9 MHz (200 kHz steps)** **87.5-108.0 MHz (100 kHz steps)**
AM	**520-1710 kHz (10 kHz steps)**
Intermediate Frequency	
AM	**450 kHz**
FM	**10.7 MHz**
Sensitivity	
AM	**46 dB/m/50 mW**
FM	**15 dB/50 mW**

■ TAPE RECORDER

Track System	**4 track, 2 channel, stereo**
Monitor system	**Variable sound monitor**
Recording system	**AC bias**
Erasing system	**Multi pole magnet**
Frequency range	
Normal position	**50 ~ 12000 Hz**

■ CD PLAYER

Sampling frequency	**44.1 kHz**
Decoding	**16 bit linear**
Beam source	**Semiconductor laser (wavelength 780 nm)**
No. of channels	**2 channel, stereo**
Wow and flutter	**Less than possible measurement data**
D/A converter	**(1 bit DAC)**

■ GENERAL

Power Requirement	
AC	**120 V, 60 Hz** **Power Consumption : 14 W**
Battery	**9 V (six R20/LR20, D, UM-1 batteries)** **■ Do not use rechargeable type batteries.**
Memory back-up	**6 V (four R6/LR6, AA, UM-3 batteries)** **■ Do not use rechargeable type batteries.**
Speakers	**10 cm (3-15/16”) 4 Ω x 2**
Jacks	
Output	**Phones : 3.5 mm stereo (32 Ω)**
Dimensions (W x H x D)	**420 x 167 x 275 mm (16-17/32” x 6-31/32” x 10-13/16”)**
Mass	**3.4 kg (7 lb. 8 oz.) without batteries**

Power consumption in standby mode : 1 W

Notes:

1. **Specifications are subject to change without notice.**
2. **Mass and dimensions are approximate.**

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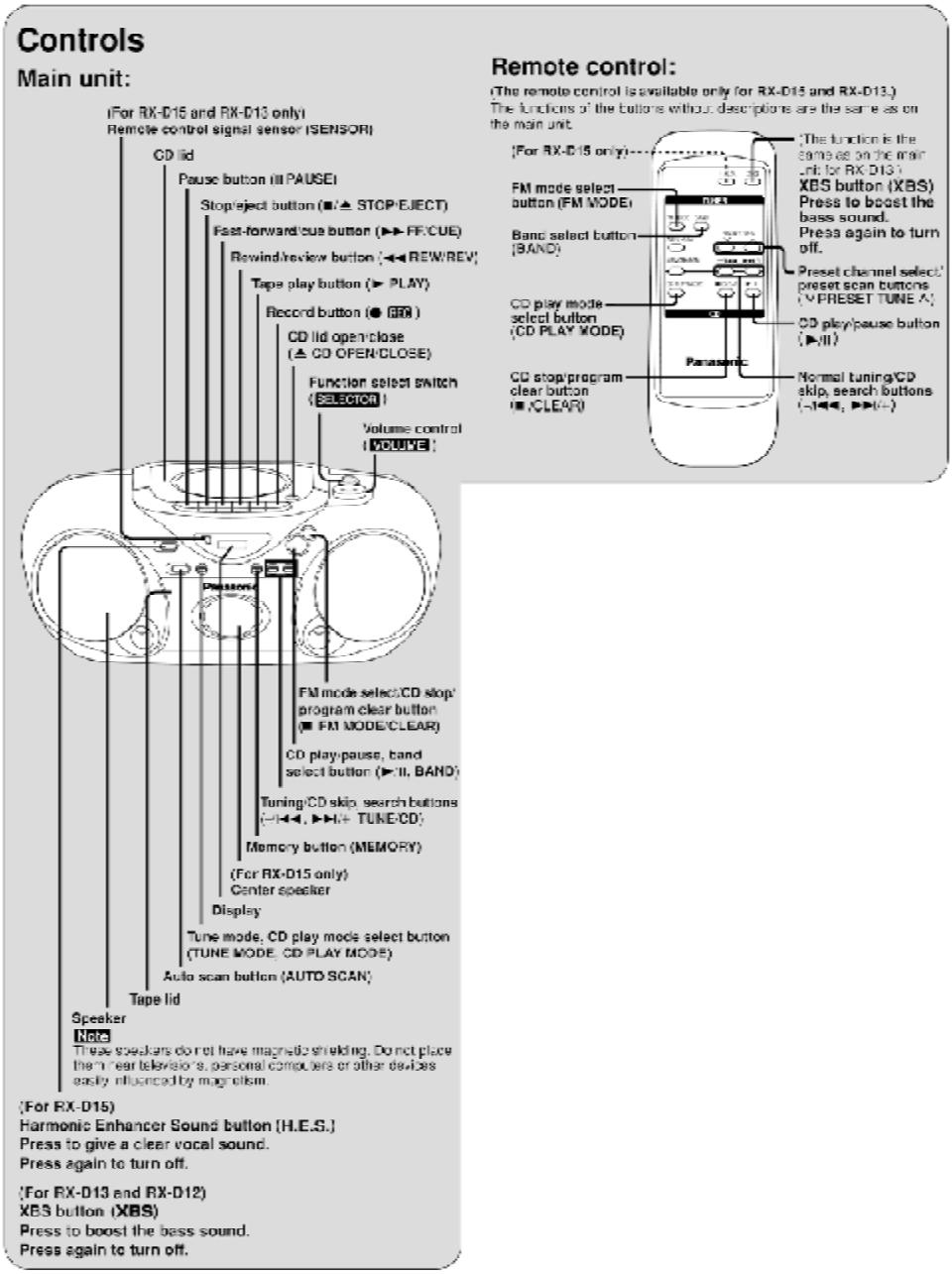
⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic®

1. Location of Controls


Controls
Main unit:
(For RX-D15 and RX-D13 only)
Remote control signal sensor (SENSOR)
CD lid
Pause button (II PAUSE)
Stop/eject button (■/▲ STOP/EJECT)
Fast-forward/cue button (▶▶ FF/CUE)
Rewind/review button (◀◀ REW/REV)
Tape play button (▶ PLAY)
Record button (● REC)
CD lid open/close (▲ CD OPEN/CLOSE)
Function select switch (SELECTOR)
Volume control (VOLUME)
FM mode select/CD stop/ program clear button (■ FM MODE/CLEAR)
CD play/pause, band select button (▶II, BAND)
Tuning/CD skip, search buttons (–I◀◀, ▶▶I/+ TUNE/CD)
Memory button (MEMORY)
(For RX-D15 only) Center speaker
Display
Tune mode, CD play mode select button (TUNE MODE, CD PLAY MODE)
Auto scan button (AUTO SCAN)
Tape lid
Speaker
Note
These speakers do not have magnetic shielding. Do not place them near televisions, personal computers or other devices easily influenced by magnetism.
(For RX-D15)
Harmonic Enhancer Sound button (H.E.S.)
Press to give a clear vocal sound.
Press again to turn off.
(For RX-D13 and RX-D12)
XBS button (XBS)
Press to boost the bass sound.
Press again to turn off.
Remote control:
(The remote control is available only for RX-D15 and RX-D13.)
The functions of the buttons without descriptions are the same as on the main unit.
(For RX-D15 only)
FM mode select button (FM MODE)
Band select button (BAND)
CD play mode select button (CD PLAY MODE)
CD stop/program clear button (■/CLEAR)
(The function is the same as on the main unit for RX-D13.)
XBS button (XBS)
Press to boost the bass sound.
Press again to turn off.
Preset channel select/ preset scan buttons (∨PRESET TUNE∧)
CD play/pause button (▶/II)
Normal tuning/CD skip, search buttons (–I◀◀, ▶▶I/+)

Battery Service Life

UM-1 (D-size) Batteries / Approximately 30 hrs of Tape Recording. (EIAJ) / Approximately 16 hrs of Tape Playback. (EIAJ) / Approximately 11.5 hrs of CD Recording. (EIAJ) / Approximately 10.5 hrs of CD Playback. (EIAJ)

The battery service life is measured according to the conditions set forth by EIAJ. (Electronic Industries Association of Japan). As the battery service life varies with the method of operation and environmental conditions, use these values as reference.

2. Schematic Diagram Note

(All schematic diagrams may be modified at any time with the development of new technology.)

Notes:

S702	**Open Switch**
S703	**Rest Switch**
SW302	**Function Switch**
SW601	**Auto Scan Switch**
SW602	**XBS/TONE/HES Switch**
SW603	**Play Mode Switch**
SW604	**Memory Switch**
SW605	**REV Skip Switch**
SW606	**FWD Skip Switch**
SW607	**Play/Pause Switch**
SW608	**CD Stop Switch**
SW1001	**Record Switch**
SW1002	**Leaf Switch**
VR301	**Volume VR**

Battery Current:
Volume minimum :
119 mA (FM)
112 mA (AM)
187 mA (TAPE Playback)
169 mA (CD REC)
Volume maximum :
119 mA (FM)
112 mA (AM)
187 mA (FM RADIO REC)
181 mA (AM RADIO REC)
187 mA (TAPE Playback)
238 mA (CD REC)

- The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis. Accordingly, there may arise some error in voltage values and waveforms depending upon the internal impedance of the tester or the measuring unit.

No mark	**...Playback**	**< >**	**...FM**
(( ))	**...CD**	**( )**	**...AM**

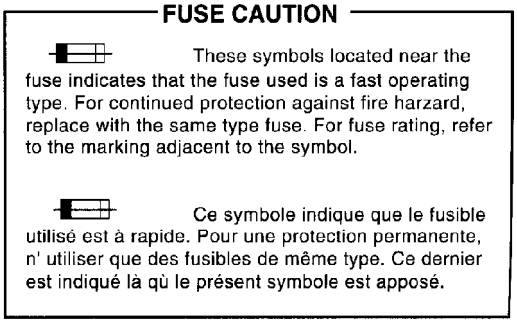
- Importance safety notice:
Components identifed by ⚠ mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

Caution!

IC, LSI and VLSI are sensitive to static electricity.
Secondary trouble can be prevented by taking care during repair.

- **Cover the parts boxes made of plastics with aluminium foil.**
- **Put a conductive mat on the work table.**
- **Ground the soldering iron.**
- **Do not touch the pins of IC, LSI or VLSI with fingers directly.**

CAUTION:
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE F501,F502, 1.25A 125V FUSE
RISK OF FIRE-REPLACE FUSE AS MARKED.


FUSE CAUTION
These symbols located near the fuse indicates that the fuse used is a fast operating type. For continued protection against fire harzard, replace with the same type fuse. For fuse rating, refer to the marking adjacent to the symbol.
Ce symbole indique que le fusible utilisé est à rapide. Pour une protection permanente, n' utiliser que des fusibles de même type. Ce dernier est indiqué là qù le présent symbole est apposé.

3. Schematic Diagram

4. Replacement Parts List

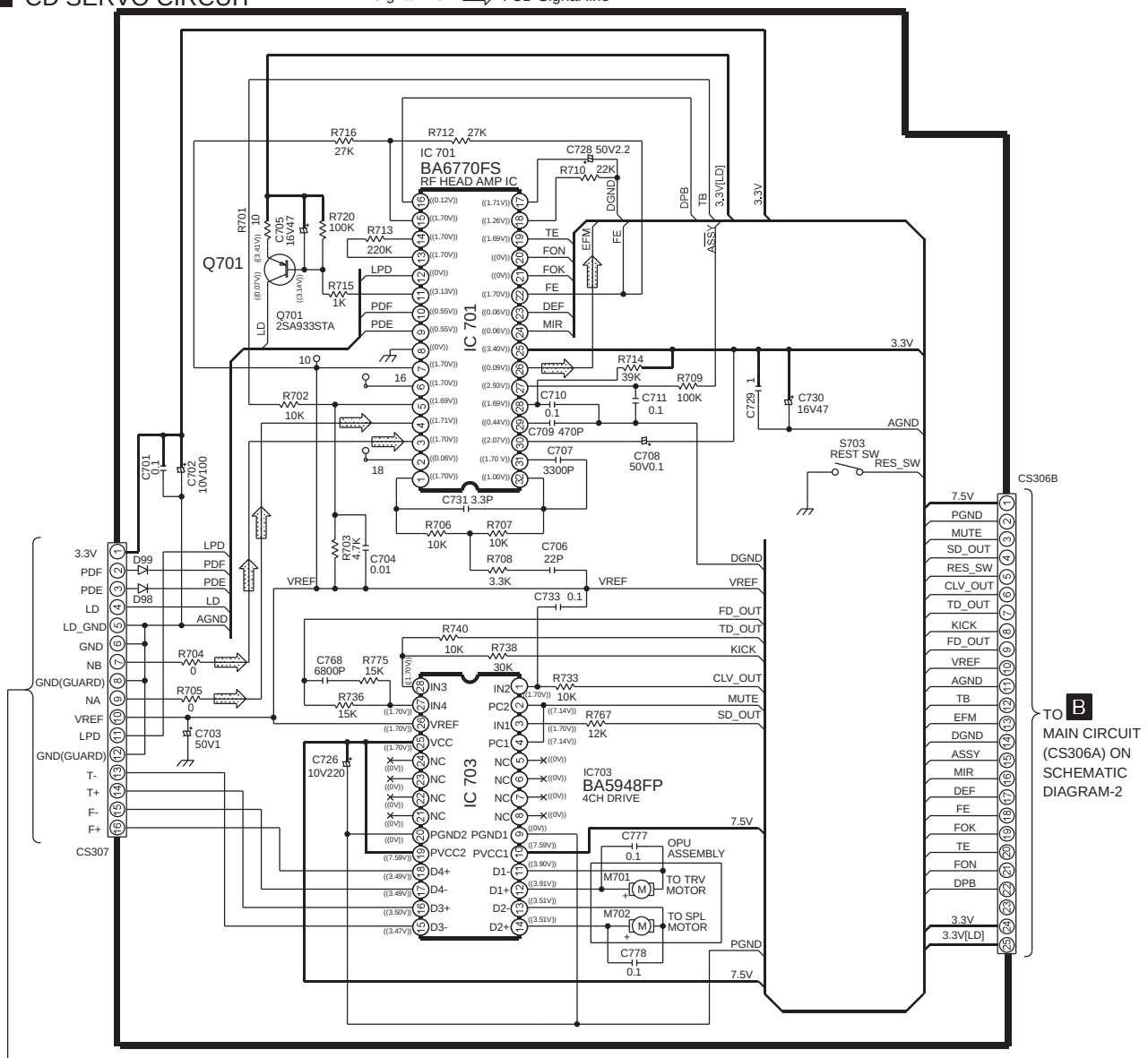
Notes:

- **The parenthesized indications in the Remarks column specify the areas or color. (Refer to the cover page for area or color.) Parts without these indications can be used for all areas.**
- **[M] indicates in the Remarks columns indicates parts that are supplied by MESA.**
- **The “(SF)” mark denotes the standard part.**
- **Remote Control Unit: Supply period for three years from terminal of production.**
- **Reference for O/I book languages are as follows :**

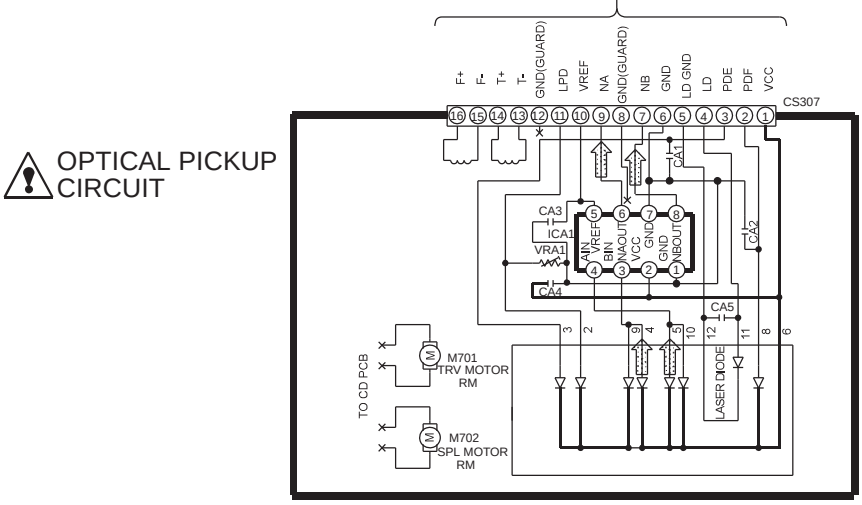
SCHEMATIC DIAGRAM-1

A CD SERVO CIRCUIT

: +B Signal line : CD Signal line



OPTICAL PICKUP CIRCUIT



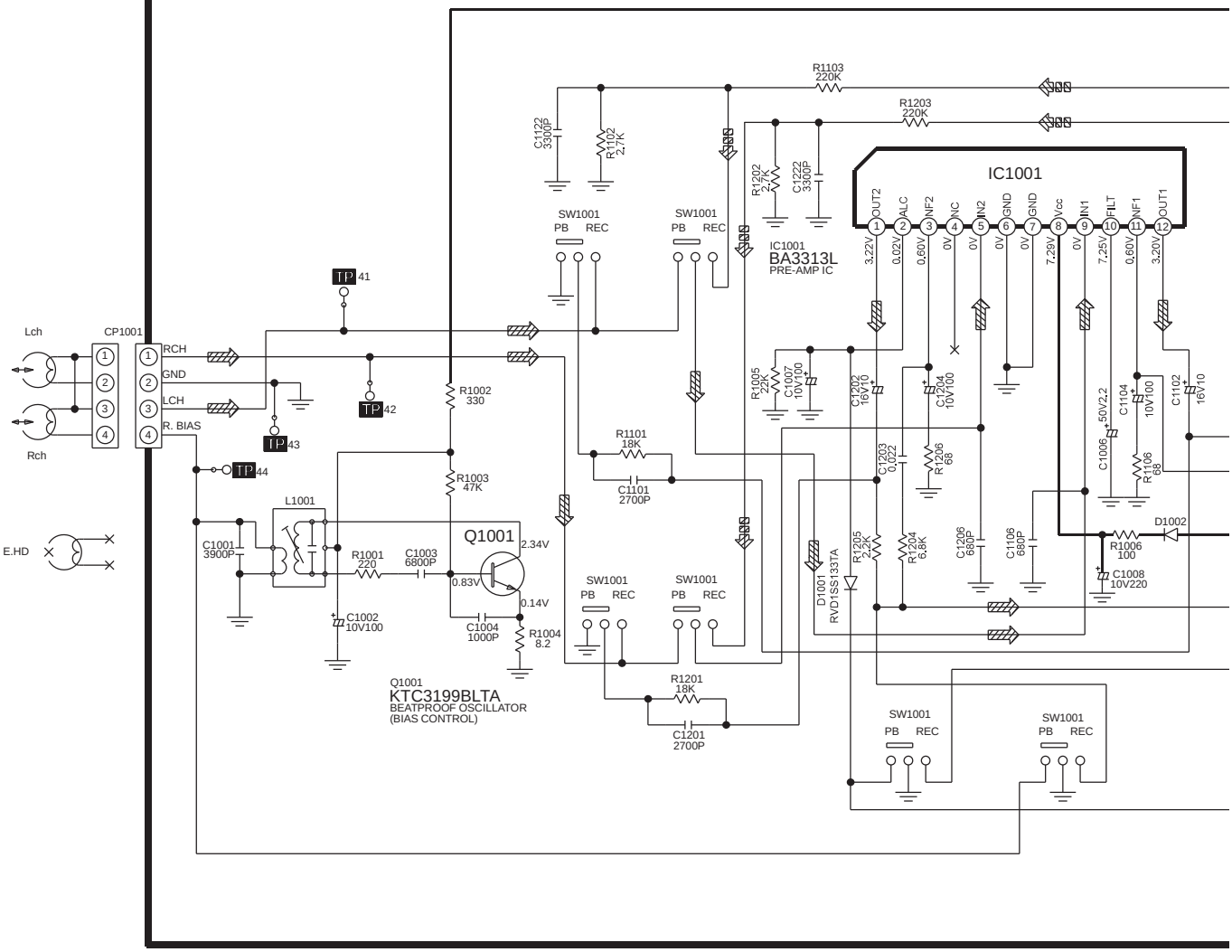
SCHEMATIC DIAGRAM-5

I DECK CIRCUIT

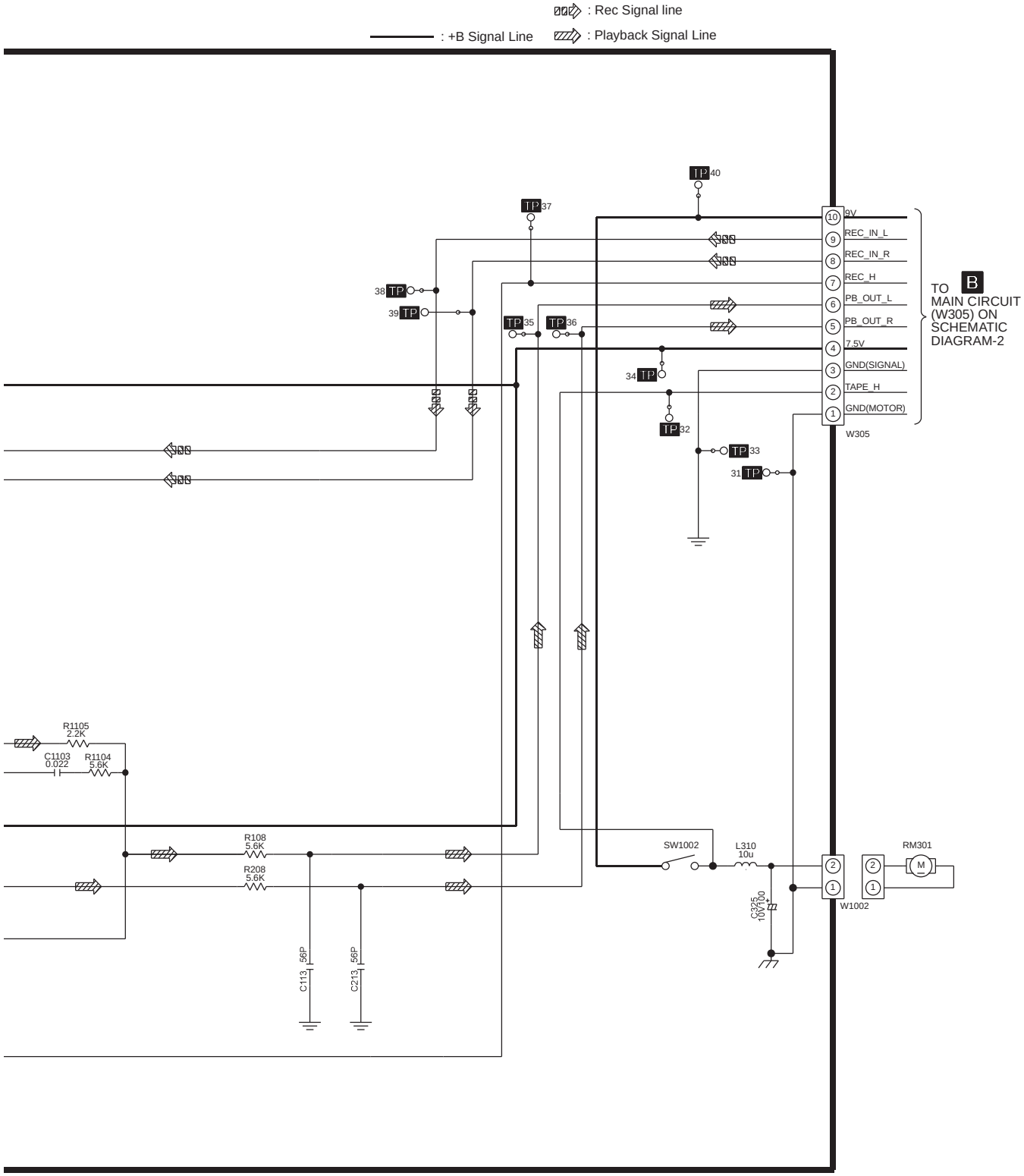
: +B Signal Line

: Rec Signal line

: Playback Signal Line



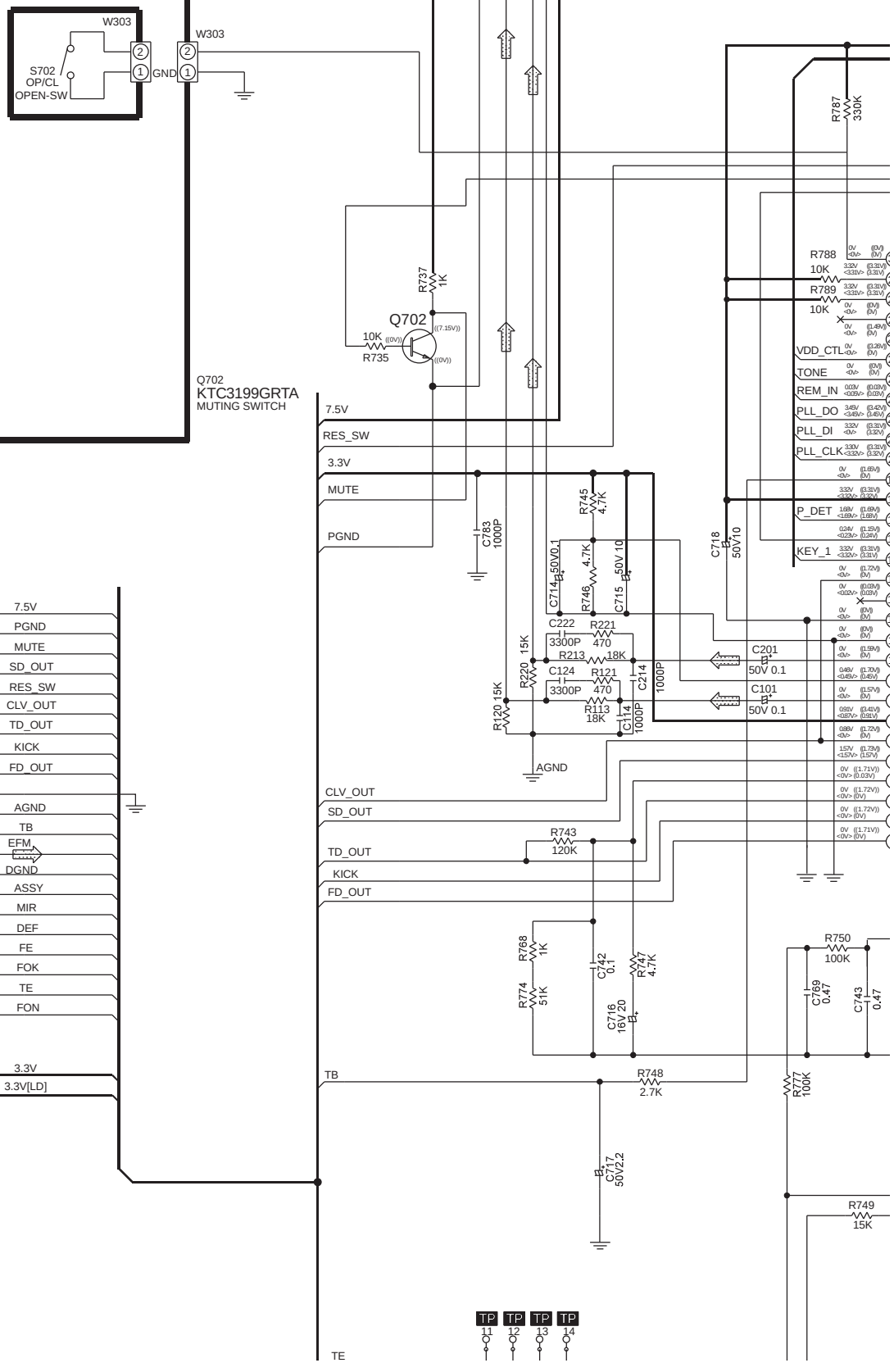
SCHEMATIC DIAGRAM-6

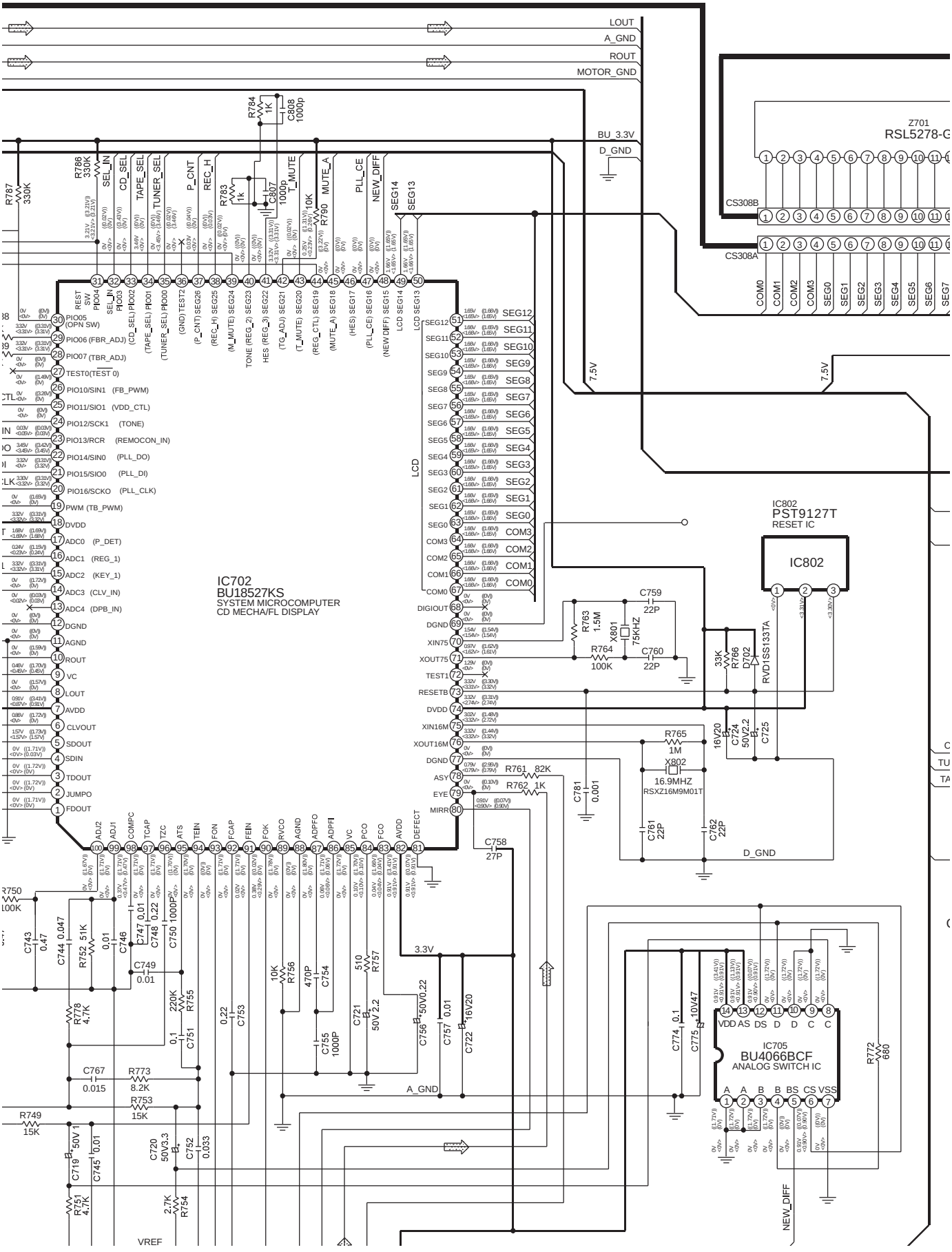


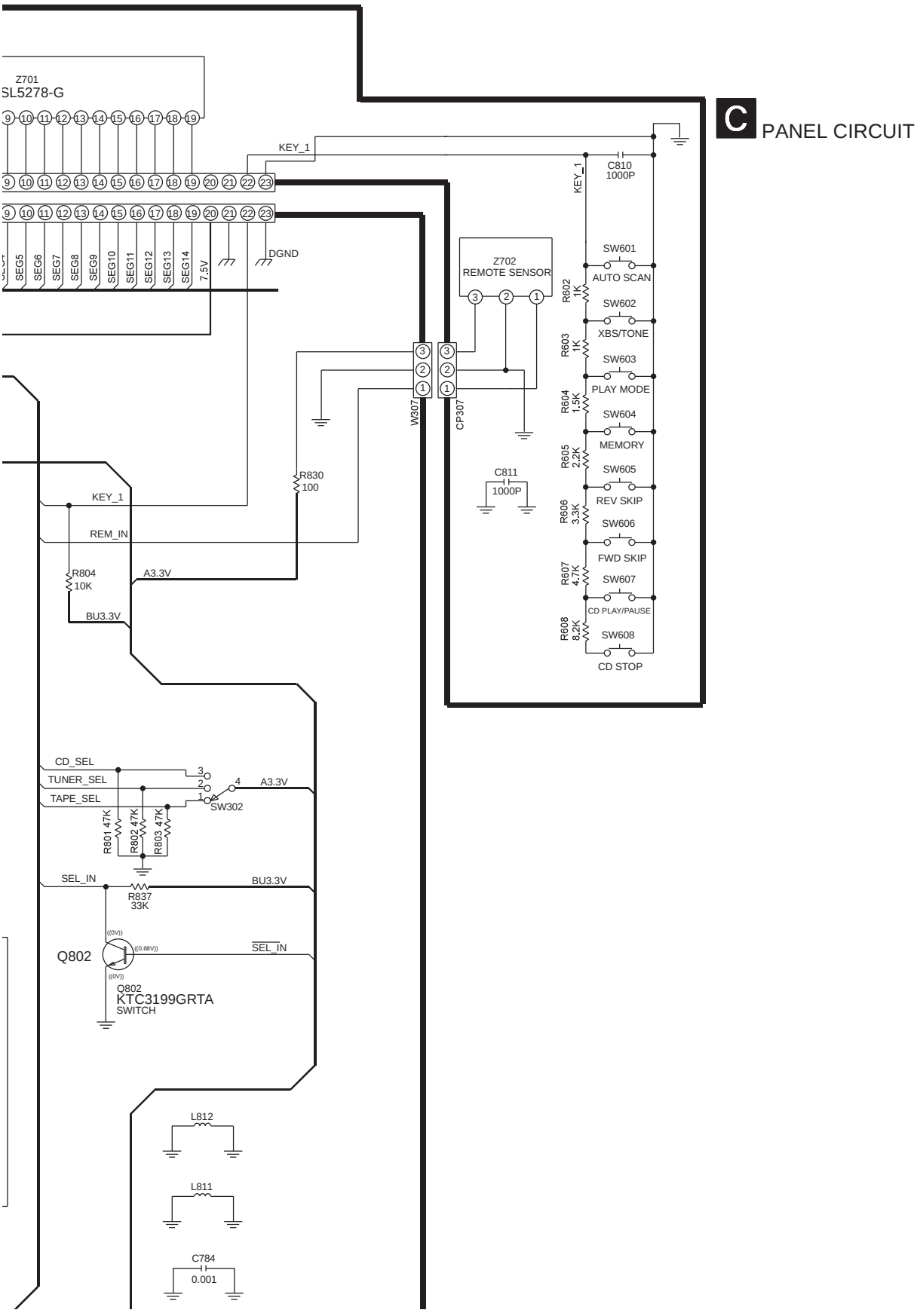
SCHEMATIC DIAGRAM-2

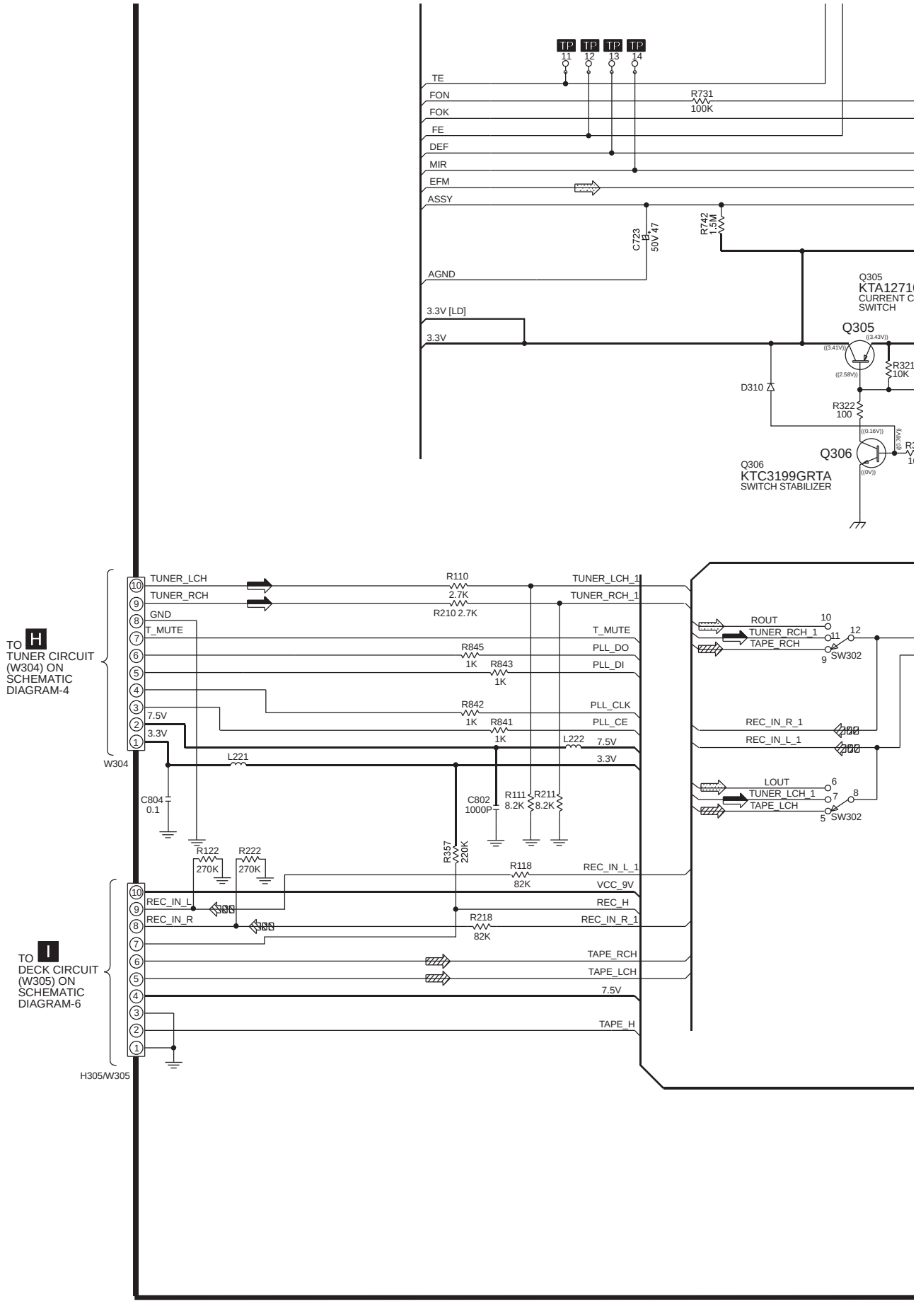
B MAIN CIRCUIT

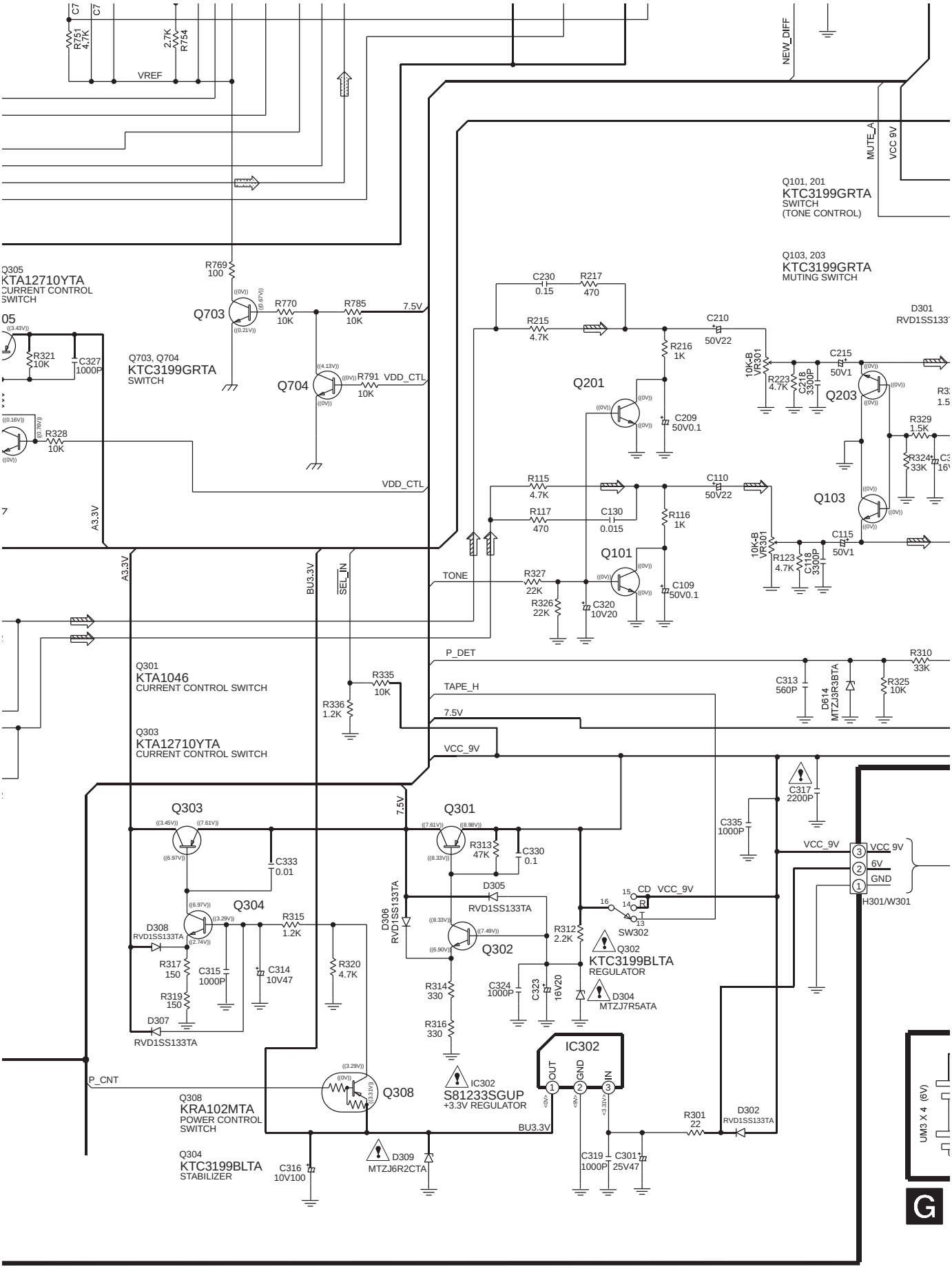
: Main Signal line
: AM/FM Signal line
: CD Signal line
: Playback Signal line
: Rec Signal line
: +B Signal line

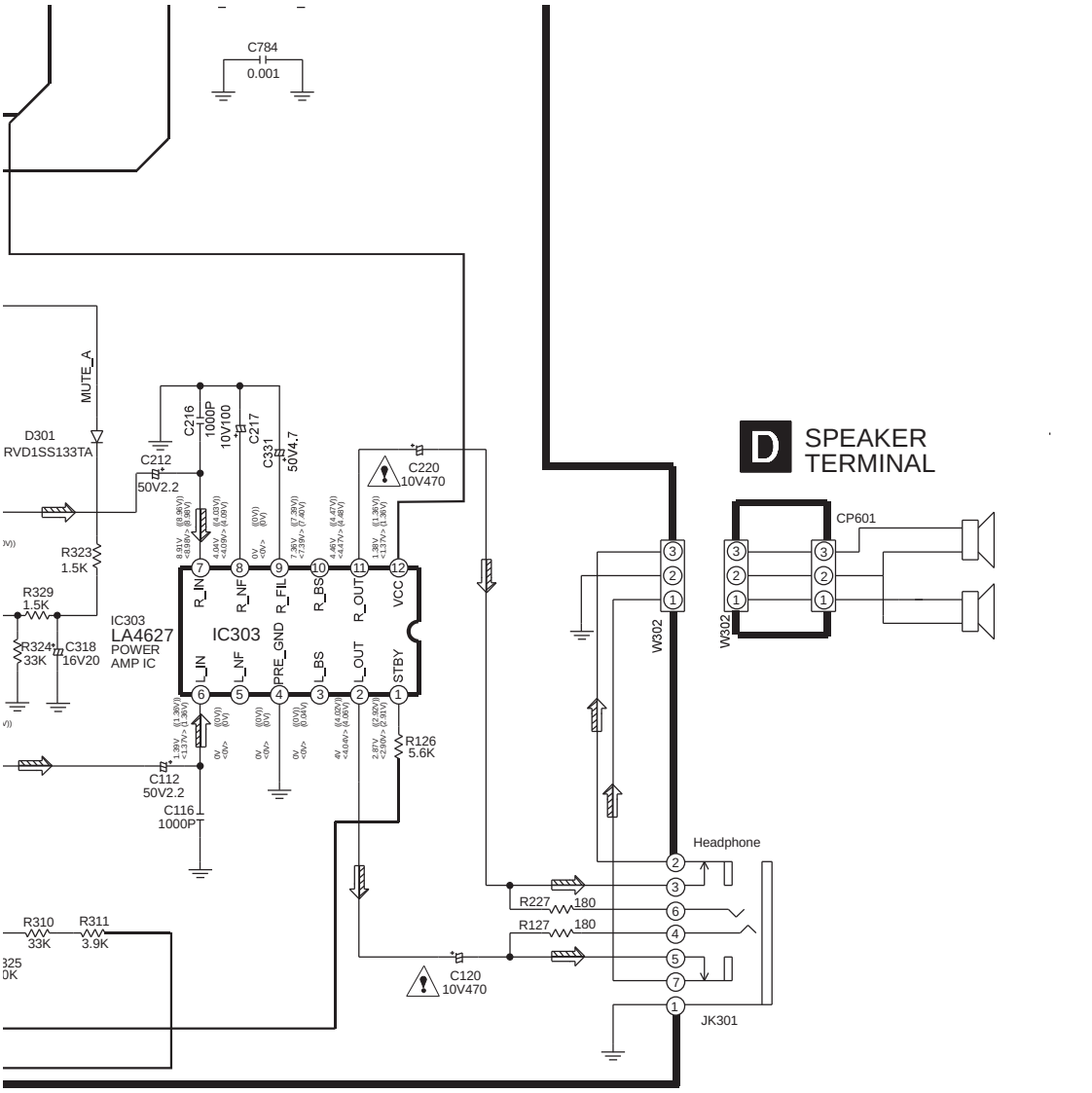


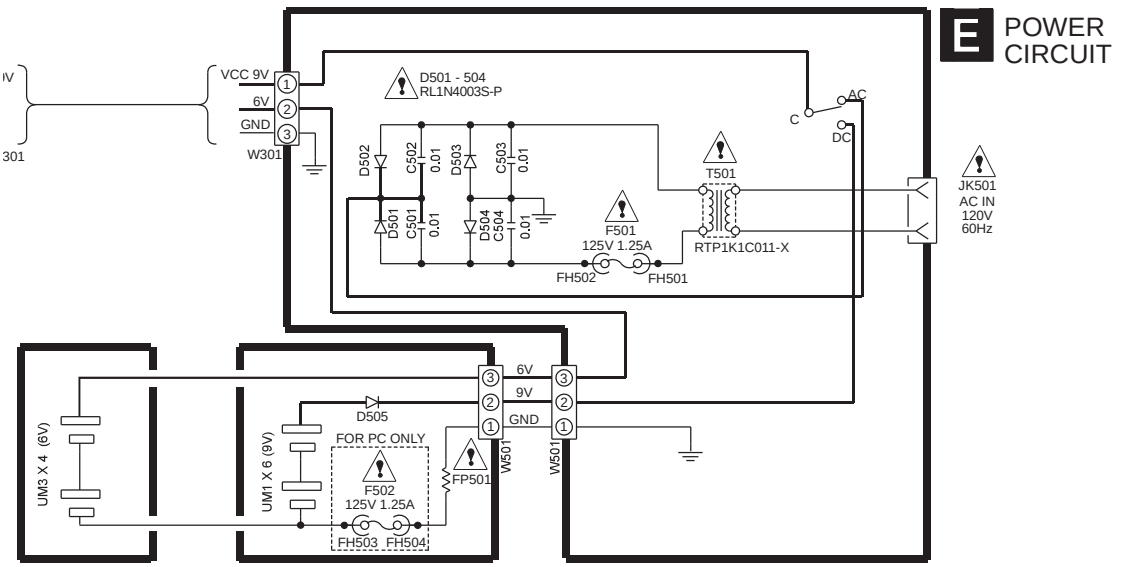

LOUT
A_GND
ROUT
MOTOR_GND
BU_3.3V
D_GND
7.5V
IC702
BU18527KS
SYSTEM MICROCOMPUTER
CD MECHA/FL DISPLAY
IC802
PST9127T
RESET IC
IC705
BU4066BCF
ANALOG SWITCH IC
Z701
RSL5278-G
CS308B
CS308A
LCD
3.3V
A_GND
D_GND
VREF
NEW_DIFF


C PANEL CIRCUIT
Z701
SL5278-G
KEY_1
C810
1000P
SW601
AUTO SCAN
R602
1K
SW602
XBS/TONE
R603
1K
SW603
PLAY MODE
R604
1.5K
SW604
MEMORY
R605
2.2K
SW605
REV SKIP
R606
3.3K
SW606
FWD SKIP
R607
4.7K
SW607
CD PLAY/PAUSE
R608
8.2K
SW608
CD STOP
Z702
REMOTE SENSOR
W307
CP307
C811
1000P
R830
100
REM_IN
R804
10K
A3.3V
BU3.3V
DGND
SEG5
SEG6
SEG7
SEG8
SEG9
SEG10
SEG11
SEG12
SEG13
SEG14
7.5V
CD_SEL
TUNER_SEL
TAPE_SEL
SW302
R801 47K
R802 47K
R803 47K
SEL_IN
R837
33K
Q802
KTC3199GRTA
SWITCH
L812
L811
C784
0.001


TP 11
TP 12
TP 13
TP 14
TE
FON
FOK
FE
DEF
MIR
EFM
ASSY
AGND
3.3V [LD]
3.3V
R731
100K
R742
1.5M
C723
0.47
50V
Q305
KTA1271
CURRENT C
SWITCH
Q305
((3.43V))
((3.41V))
((2.58V))
R321
10K
D310
R322
100
((0.16V))
((0.78V))
Q306
((0V))
Q306
KTC3199GRTA
SWITCH STABILIZER
TO H
TUNER CIRCUIT
(W304) ON
SCHEMATIC
DIAGRAM-4
W304
TUNER_LCH
TUNER_RCH
GND
T_MUTE
7.5V
3.3V
R110
2.7K
R210 2.7K
TUNER_LCH_1
TUNER_RCH_1
T_MUTE
R845
1K
R843
1K
PLL_DO
PLL_DI
R842
1K
R841
1K
PLL_CLK
PLL_CE
L222
7.5V
3.3V
L221
C804
0.1
C802
1000P
R111
8.2K
R211
8.2K
R122
270K
R222
270K
R357
220K
R118
82K
REC_IN_L_1
VCC_9V
REC_H
REC_IN_R_1
R218
82K
TAPE_RCH
TAPE_LCH
7.5V
TAPE_H
REC_IN_L
REC_IN_R
TO I
DECK CIRCUIT
(W305) ON
SCHEMATIC
DIAGRAM-6
H305/W305
ROUT
TUNER_RCH_1
TAPE_RCH
SW302
LOUT
TUNER_LCH_1
TAPE_LCH
SW302
REC_IN_R_1
REC_IN_L_1


C7
C7
R751 4.7K
2.7K R754
VREF
NEW_DIFF
MUTE_A
VCC 9V
Q101, 201
KTC3199GRTA
SWITCH
(TONE CONTROL)
Q103, 203
KTC3199GRTA
MUTING SWITCH
Q305
KTA12710YTA
CURRENT CONTROL
SWITCH
R769 100
Q703
R770 10K
R785 10K
7.5V
Q704
R791 10K
VDD_CTL
Q703, Q704
KTC3199GRTA
SWITCH
R321 10K
C327 1000P
R328 10K
VDD_CTL
A3.3V
C230 0.15
R217 470
R215 4.7K
C210 50V22
R216 1K
Q201
C209 50V0.1
10K-B VR301
C215 50V1
R223 4.7K
C218 330P
Q203
R329 1.5K
R324 33K
R115 4.7K
C110 50V22
R117 470
C130 0.015
R116 1K
Q103
Q101
C109 50V0.1
C115 50V1
R123 4.7K
C108 330P
TONE
R327 22K
R326 22K
C320 10V20
P_DET
R310 33K
C313 560P
D614 MTZJ3R3BTA
R325 10K
Q301
KTA1046
CURRENT CONTROL SWITCH
R335 10K
R336 1.2K
TAPE_H
7.5V
Q303
KTA12710YTA
CURRENT CONTROL SWITCH
VCC_9V
BU3.3V
SEL_IN
Q303
Q301
C317 2200P
C335 1000P
VCC_9V
VCC 9V
6V
GND
H301/W301
C333 0.01
Q304
R313 47K
C330 0.1
D305
RVD1SS133TA
D306
RVD1SS133TA
CD
VCC_9V
SW302
R312 2.2K
Q302
KTC3199BLTA
REGULATOR
D308
RVD1SS133TA
R315 1.2K
R317 150
C315 1000P
C314 10V47
R320 4.7K
R319 150
D307
RVD1SS133TA
Q302
R314 330
C324 1000P
C323 16V20
D304
MTZJ7R5ATA
R316 330
IC302
S81233SGUP
+3.3V REGULATOR
IC302
OUT
GND
IN
P_CNT
Q308
KRA102MTA
POWER CONTROL
SWITCH
Q308
R301 22
D302
RVD1SS133TA
BU3.3V
Q304
KTC3199BLTA
STABILIZER
C316 10V100
D309
MTZJ6R2CTA
C319 1000P
C301 25V47
UM3 X 4 (6V)
G


C784
0.001
MUTE_A
D301
RVD1SS133TA
C212
50V2.2
C216
1000P
C217
10V100
C331
50V4.7
C220
10V470
R323
1.5K
R329
1.5K
R324
33K
C318
16V20
IC303
LA4627
POWER
AMP IC
IC303
R_IN
R_NF
R_FIL
R_BS
R_OUT
VCC
L_IN
L_NF
PRE_GND
L_BS
L_OUT
STBY
R126
5.6K
C112
50V2.2
C116
1000PT
R310
33K
R311
3.9K
C120
10V470
W302
D SPEAKER
TERMINAL
CP601
W302
Headphone
R227
180
R127
180
JK301


E POWER
CIRCUIT
VCC 9V
6V
GND
W301
D501 - 504
RL1N4003S-P
AC
C
DC
D502
C502
0.01
D503
C503
0.01
T501
JK501
AC IN
120V
60Hz
D501
C501
0.01
D504
C504
0.01
F501
125V 1.25A
RTP1K1C011-X
FH502
FH501
6V
9V
GND
D505
FOR PC ONLY
W501
W501
UM3 X 4 (6V)
UM1 X 6 (9V)
F502
125V 1.25A
FH503 FH504
FP501

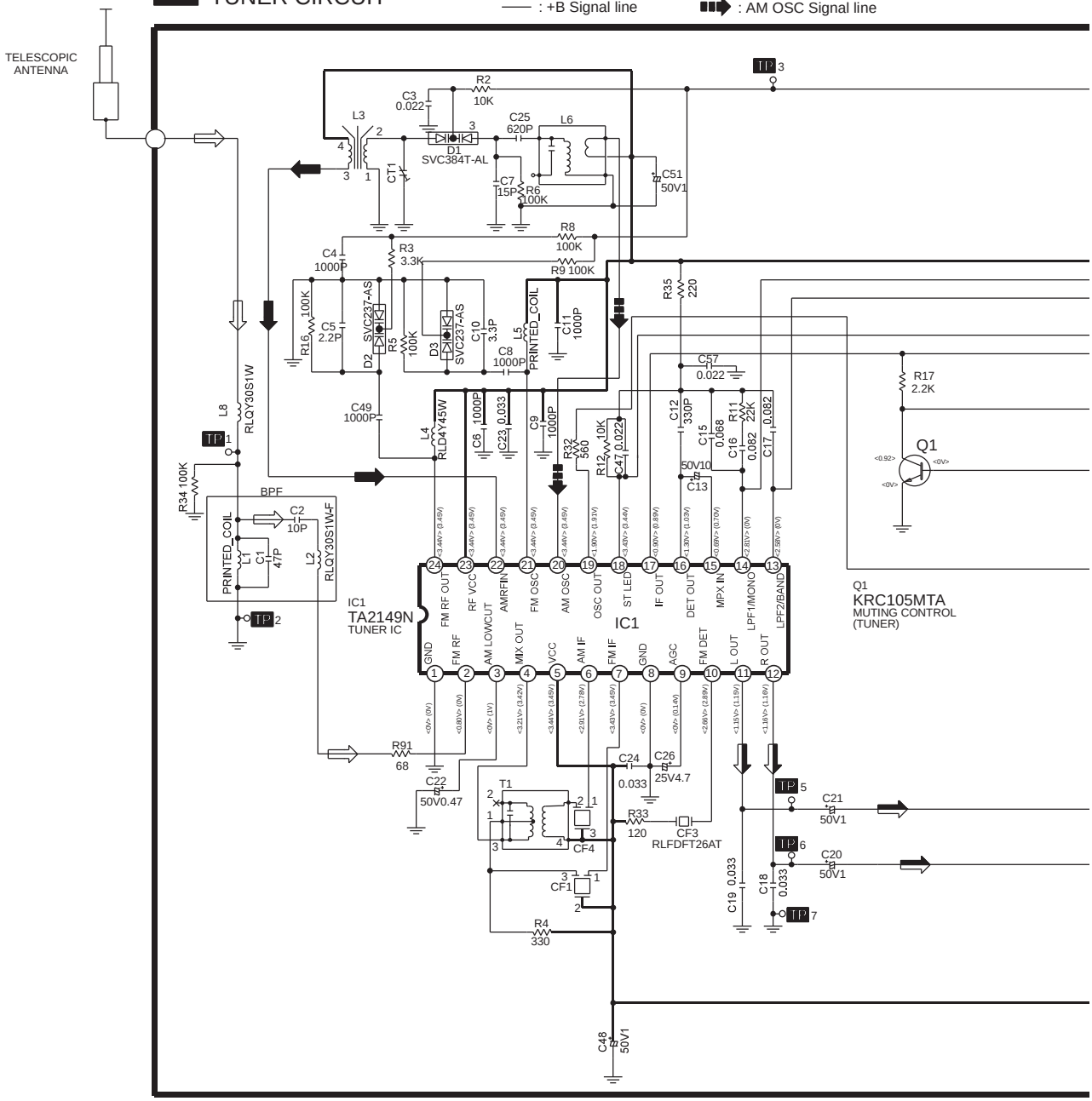
G BATTERY(2)
CIRCUIT

F BATTERY(1)
CIRCUIT

SCHEMATIC DIAGRAM-3

H TUNER CIRCUIT

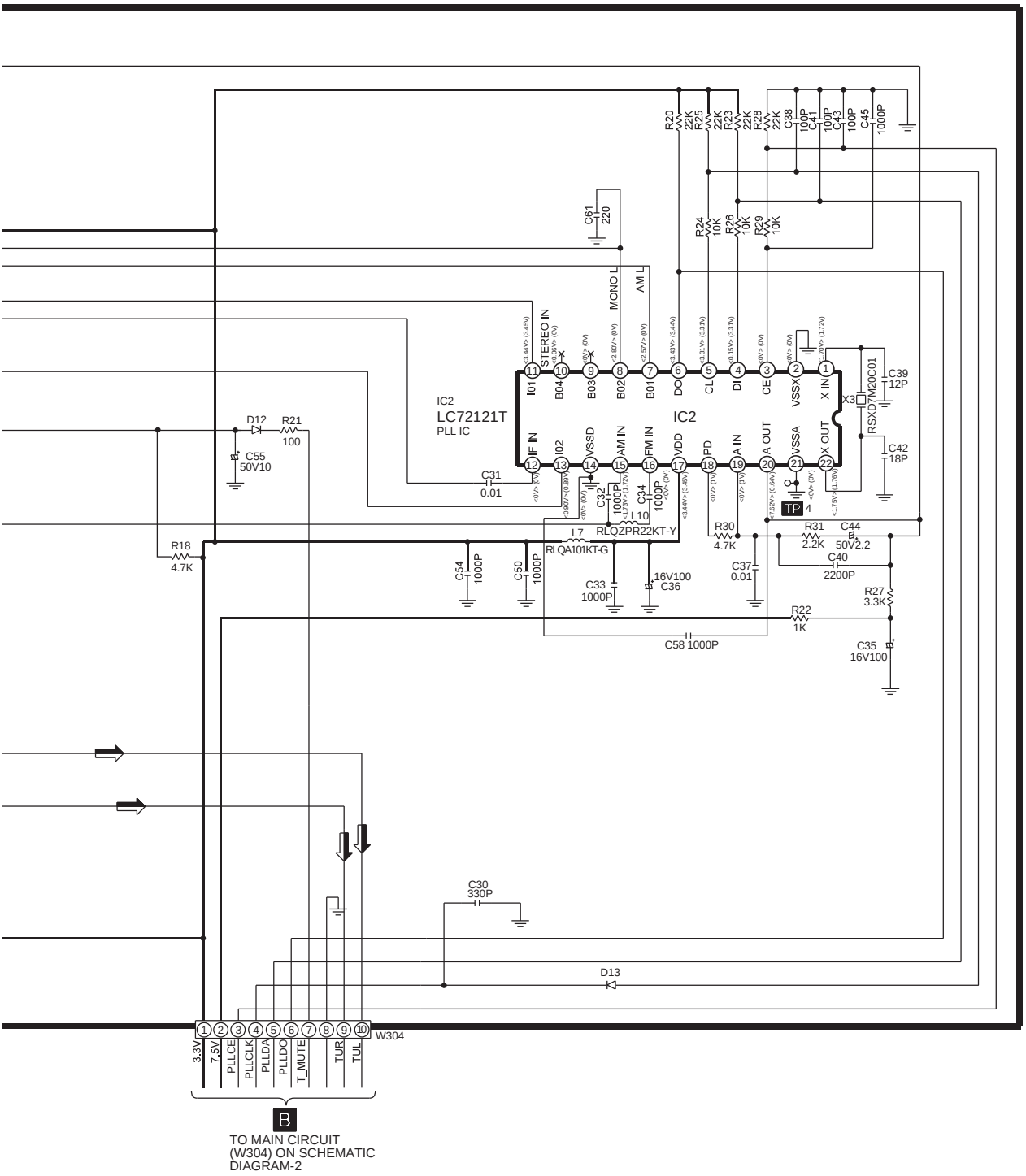
: FM Signal line
: +B Signal line
: AM Signal line
: AM/FM Signal line
: AM OSC Signal line



SCHEMATIC DIAGRAM-4

: AM/FM Signal line

: +B Signal line

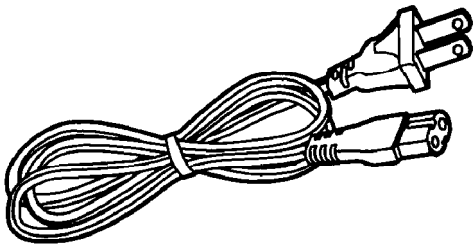


Ar : Arabic	Cf : Canadian French	Cz : Czech	Da : Danish
Du : Dutch	En : English	Fr : French	Ge : German
It : Italian	Ko : Korean	Po : Polish	Ru : Russian
Sp : Spanish	Sw : Swedish	Co : Traditional Chinese	Cn : Simplified Ch

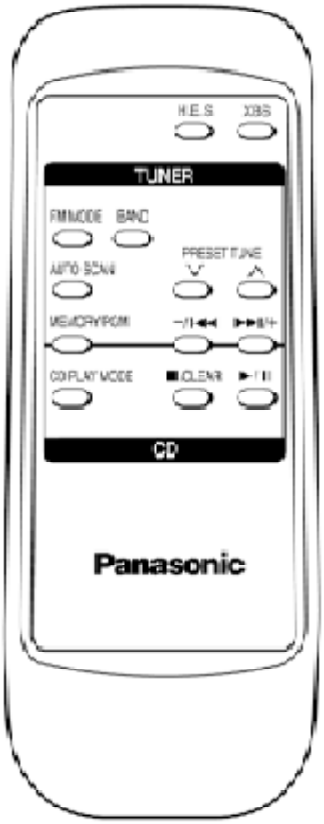
4.1. Accessories Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		ACCESSORIES	
A1	EUR648257	REMOTE CONTROLLER	[M]
A1-1	UR64EC2337A	R/CA BATTERY COVER	[M]
A2	RJA0065-1D	AC CORD	[M] ⚠
A3	RQT5685-1P	O/I BOOK (En)	[M]

AC power cord.... 1 pc



Remote Control.... 1 pc



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